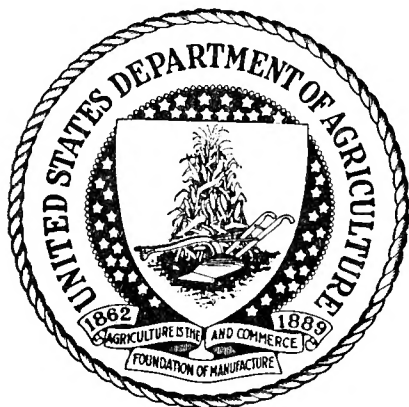


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Lighter grades of field-grown roses.

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Also the following varieties of Seedlings, well graded:

Apple	Mulberry
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Catalpa	Osage
Elm	Walnut

ORNAMENTALS

Hydrangeas	Snowballs
Tartarian Honeysuckles	Spireas
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ThurLOW Willow, 5 to 6 ft., and 6 to 8 ft.
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All styles of Root Grafts made to order.

Will Make Low Prices

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Have ONE OF THE LARGEST FORCES OF SALESMEN.

Fall sales about \$30,000.

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Old established stock has excellent reputation.

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Owing to the enforced retirement of two of the Company they desire to sell.

Cash or a good note will be accepted.

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THE Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.

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PAEONIAS—Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.

Fall trade list on application.

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Fig. 1. A fine block of two-year-old pears in the nursery of C. W. Stuart & Co., Newark, N. Y.
(Neither the photographer nor the engraver rendered justice in this case.)

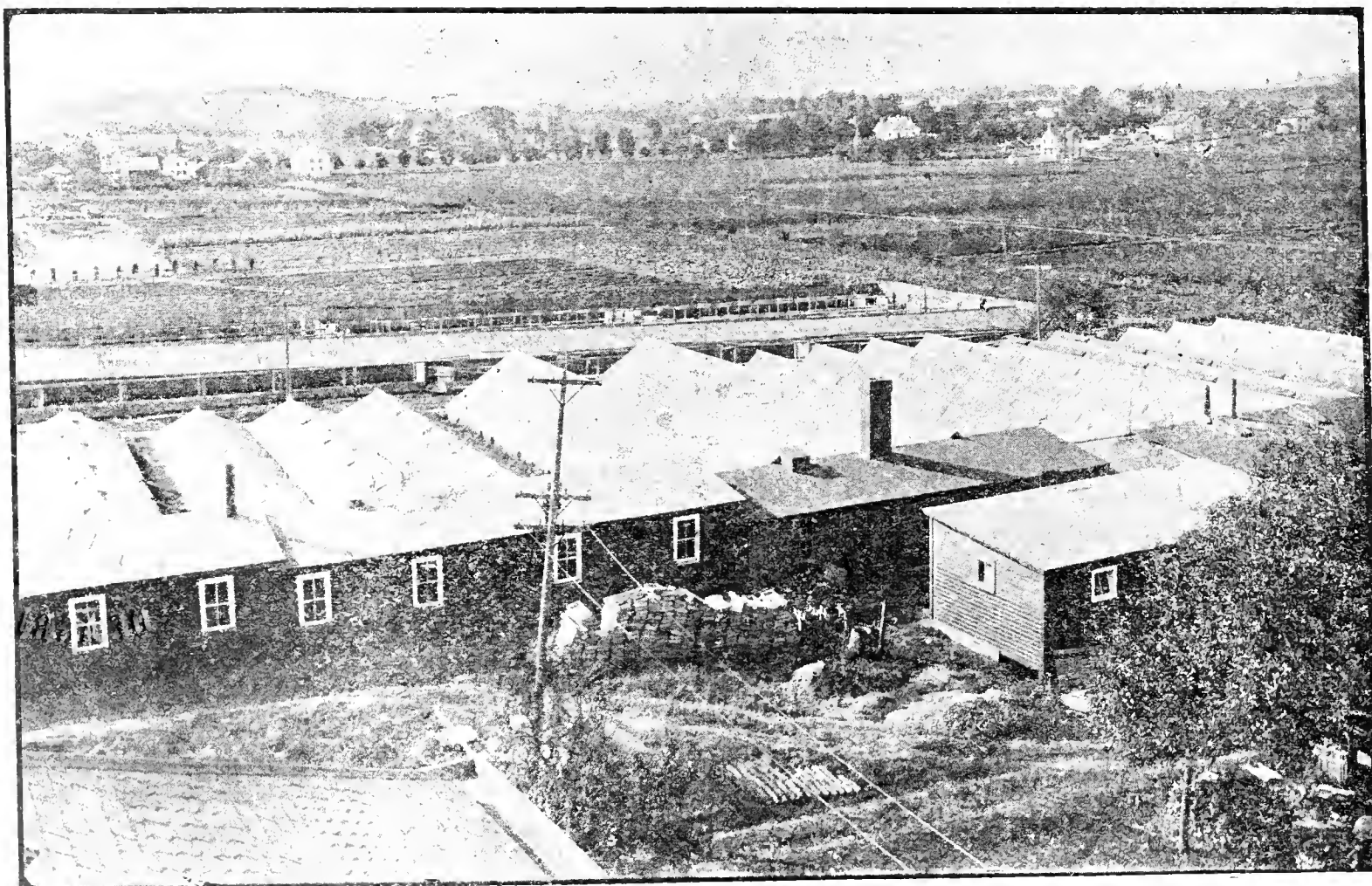


Fig. 2. The extensive layout of propagating houses of Jackson & Perkins Co., Newark, N. Y.,
with a glimpse of the nursery grounds in the distance.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., JANUARY, 1905.

No. 1.

SKETCHES OF NURSERY REGIONS

I.

NEWARK, IN WAYNE CO., NEW YORK—AN IMPORTANT NURSERY CENTER.

Wayne county has long been famous as an apple producing region. It is tempered in great part by the equalizing influence of Lake Ontario which washes its northern boundary. Its soil is largely a fertile glacial deposit found in the curious drumlins oblong hills very abundant in the northern part.—with excellent natural drainage in most cases. In certain sections, not distant from the lake, the soil is light or sandy, furnishing splendid opportunities for peach growing which are now being vigorously developed.

One of the small special crops of Wayne county is peppermint oil which has been produced for a number of years with varying success. But the main crop is apples.

So great is the apple product of this county that not unfrequently has it been larger than that of the entire yield of some of the New England or of the middle western states. The evaporated apple product exceeds that of any state in the Union and only California, Oregon and North Carolina manufacture more evaporated fruit products than Wayne Co., N. Y. This extensive acreage and large yield are primarily due to the early establishment of nurseries in that section. A nursery which had a striking influence on the planting

continuously for more than forty years. The first important orchard of the county composed of apples of forty-five varieties was planted by him about the middle of the century. The area occupied by his nursery stock varied from 100 to 150 acres

in extent. In 1855 Mr. Yeomans planted 135 acres of Baldwins. The influence of these men on the planting of the western part of the county at a time when orchardists depended almost exclusively on home-grown stock, was most profound.

To-day the most important nursery firms are located and growing their stock in the vicinity of Newark. At present there are five influential firms situated in that section. These are

Messrs. Jackson & Perkins Co., wholesalers, Emmons & Co., William C. Moore & Co., and Knight & Bostwick, retailers, and C. W. Stuart & Co., wholesalers and retailers.

The Progressive Firm of C. W. Stuart & Co.

It was about the year 1852 that two men, Messrs. Wright & White organized and operated a nursery in the town of Newark. The nursery ground of this firm occupied substantially the site of the present home of Mr. C. W. Stuart the senior member of the firm. Mr. White died in 1864 and was succeeded by William Brown Smith who, by the way,—was one of the family of the

former noted Syracuse nurserymen—Smith, of Smith, Powell & Lamb. Mr. White was succeeded by C. W. Stuart who, purchased Mr. Smith's interest a little later, and for years thereafter assumed full control and conducted the business alone.

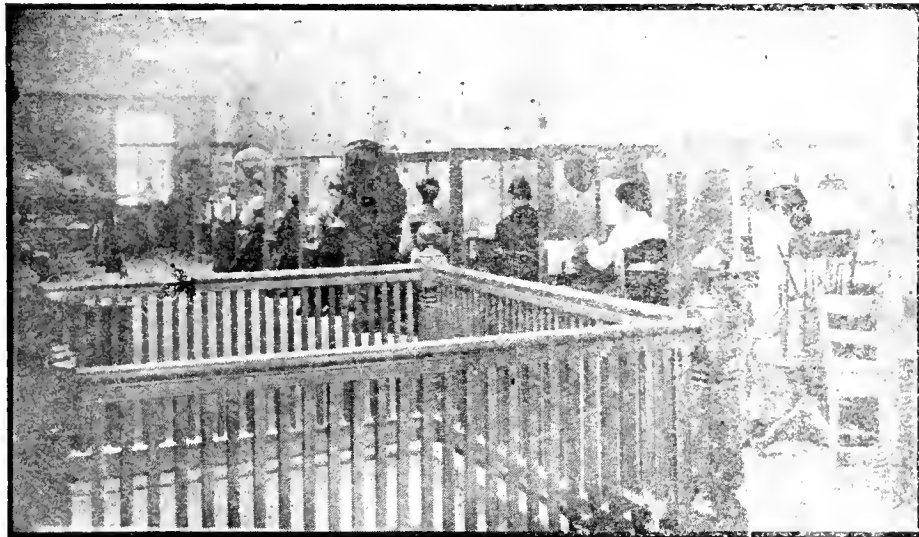


Fig. 3. An interior view of the offices of C. W. Stuart & Co.



Fig. 4. In the apple nursery of Stuart & Co. A block of one and two-year olds.

of orchards was that established by T. G. Yeomans & Sons, at Walworth, about the middle of the last century. Mr. T. G. Yeomans became interested in apple growing, and beginning in 1846 he propagated apples and other fruit trees

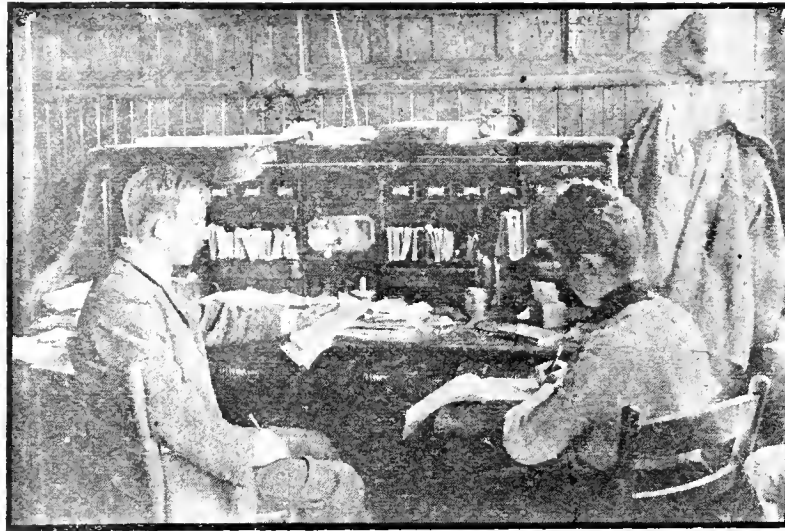
C. W. Stuart & Co., of Newark, N.Y., are now a corporation, having been incorporated in 1902, with the following officers: C. W. Stuart, president; C. H. Stuart, secretary, and J. M. Pitkin, Jr., treasurer, and manager of the company.

C. W. Stuart & Co., now own about one thousand acres of land, in the vicinity of Newark, and near Orleans, Ontario county. The main nursery is located at Orleans on a farm of 337 acres. In addition to this nursery there is a stock farm of 200 acres which aids in solving the fertilizer problem. Stuart & Co. grow a general assortment of nursery stock,—from bulbs, perennials, fruit, ornamentals and small fruits, to a full line of standard orchard fruits. They have in a limited

in this firm has been reduced to its simplest form consistent with intelligent knowledge. Each department is kept separate as to cost of maintenance, revenue and service. Comparative statements of profits and losses of different departments are maintained and prepared periodically.

The business has increased rapidly in recent years and the success of this firm is due, primarily, to the care exercised in growing a good product. When the land on the old homestead at Newark refused to produce stock of the quality desired by the firm, the growing end of the business was promptly moved to Orleans where on deep, fertile, rolling land, ideal conditions prevail for the production of high-grade fruit trees.

The various photographs accom-



"GETTING DOWN TO BUSINESS."
Fig. 5. Secretary C. H. Stuart of Stuart & Co.



Fig. 6. Foundation work in growing good stock—Draining the land in the Stuart nursery.



Fig. 7. The result of good soil preparation and good tilling is good trees, C. W. Stuart & Co.

way experimented in the growing of fruit stocks for a number of years.

As introducers of new varieties they are known to the trade by having given to the public the Newark Currant, Stuart Biggareau Cherry, a light colored sweet cherry ripening two weeks later than other standard sorts; the Black Diamond Raspberry, Richard Peach, and several other varieties of standard merit. Another side issue of the firm has been the introduction of the Pure Gold Oat. As a general indication of the extent of their business we may note that their shipments in 1904 amounted to over seven thousand boxes.

OFFICE MANAGEMENT.

The management of a large retail nursery establishment, where thousands of salesmen are employed, calls for a thoroughly practical system and a good executive. There are fifty-two individuals employed in the office and the fact that of this number nineteen are typewriters suggests the volume of correspondence. Bookkeeping

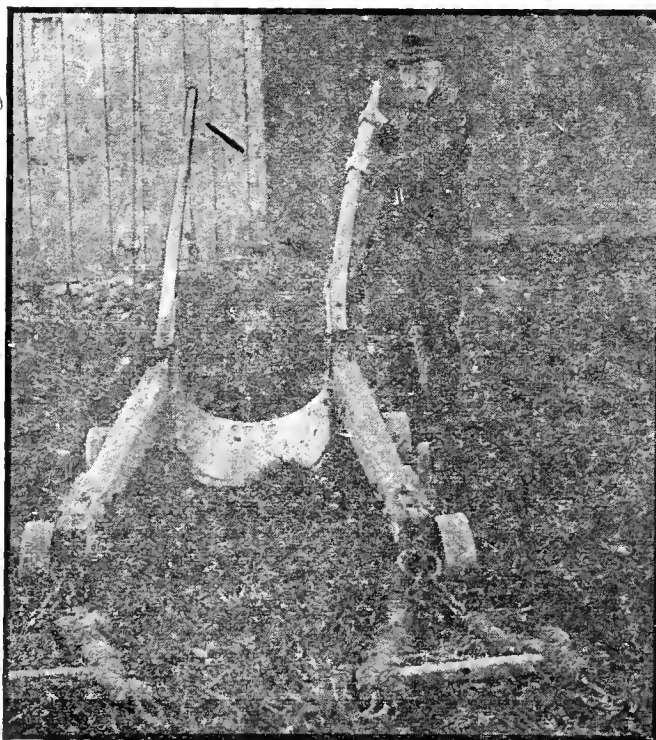


Fig. 8. A good tree digger is essential to the satisfactory digging of nursery stock.
—Stuart & Co.

panying this sketch illustrate the quality of the stock and the lay out of the establishment. The energy and resourcefulness of the officers of the company has had much to do with the recent rapid development and marked business success and may be regarded as an important secondary cause. In the retail business dealing with a great number of salesmen, executive qualities are of prime importance. We predict for this firm a place of increasing influence among the nurserymen of the East.

The Jackson & Perkins Co.,

WHOLESALE ONLY.

The firm of Jackson & Perkins has had an interesting history. It was established by A. E. Jackson and C. H. Perkins about 1861. The business began as a market gardening concern.

The energy and thrift of the proprietors soon outgrew the original conceptions of the firm, and an active aggressive business in small fruit and vegetable plants and grape-vines was commenced in 1873. A general line of nursery work was continued from 1873 to 1885 when ornamentals and indoor

stock began to be largely propagated. At this time the need of an expert propagator was felt, and Mr. E. A. Miller, who had been trained in the practical schools of Germany became

color is a beautiful shell pink and it has much the same habit of growth and manner of blooming as Crimson Rambler. It is a very desirable companion rose to the latter. About one

hundred varieties of roses are grown each year. In 1904, at Newark, N.Y., approximately 400,000 plants were propagated from cuttings, and 125,000 from buds. This number was increased by the addition of 400,000 propagated in California.

Of clematis and climbers, the stock is large and complete. The propagating list of the large flowering varieties of clematis for 1904 amounted to 135,000. Of these, *Clematis Jackmani* Madam André and *C. Henryii* are leaders; of the small flowered varieties *C. Paniculata* heads the list and was propagated the past season to the extent of a stock of 125,000. Japan Ivy (Boston Ivy, *Ampelopsis Veitchii*) is an important item, something over 100,000 having been propagated last year.

In the line of ornamental shrubbery, the work is conducted on an equally extensive scale. In 1904, approximately 235,000 plants were propagated. Of these, 100,000 were *Hydrangea paniculata grandiflora*, 25,000 were viburnums, 15,000 spireas in variety



Fig. 9. Business headquarters of Jackson & Perkins Co. and The G. H. Perkins Co., Newark, N. Y.

associated with the firm with special charge of the nursery and propagating branch.

From an area of thirty acres, the business has grown until it now occupies a tract of 300 acres in New York, supplemented by 60 acres in California. The firm's interest in roses developed the Pacific coast branch.

The field work includes a general line of nursery stock with the rose, clematis and lawn ornamentals as specialties.

PROPAGATING FEATURES.

An important feature of this wholesale enterprise is propagating roses. There are some 35,000 feet of glass in Newark and 7,000 to 8,000 feet in Orange, Cal. The ranges in Newark are largely used for propagating the rose and clematis. In these two lines Jackson & Perkins Co. are leaders in the United States, and the quantity of young plants coming on is a source of wonderment to the occasional visitor. Among the many varieties of roses which they have been instrumental in bringing to public notice is one of their own origination. This is the Dorothy Perkins, a cross between *R. Wichuriana* and Madam Gabriel Luizet. The

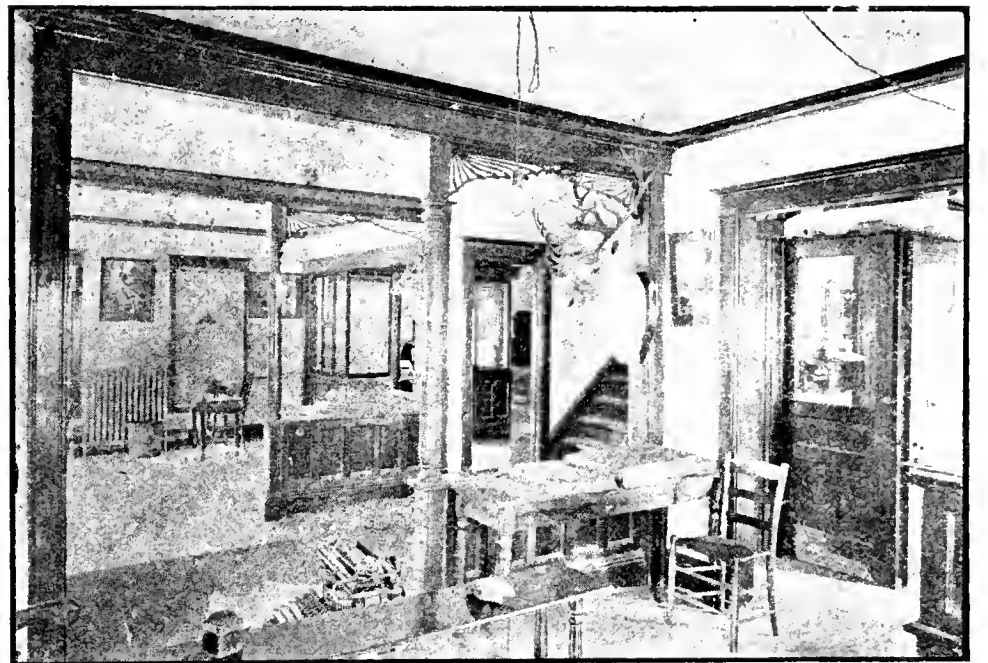


Fig. 9. The cosy interior of the offices of Jackson & Perkins Co.

and 10,000 weigelas.

The labor employed in the Jackson & Perkins' field and greenhouse work varies from twenty-five employees in the winter, to seventy-five in summer. Day labor is mostly supplied by Italian workmen. Competent English and German foremen are retained.

THE FERTILITY PROBLEM.

In growing ornamental and other stock which requires strong land to bring it to salable age in the shortest possible time, a careful and systematic management of the soil must be practiced. The fertility question is a difficult and expensive one. Some of these difficulties are obviated by this firm in the same manner as by Stuart & Co., viz: by manufacturing their own fertilizer. This is done by importing western cattle (stockers) and feeding these on the home farm.

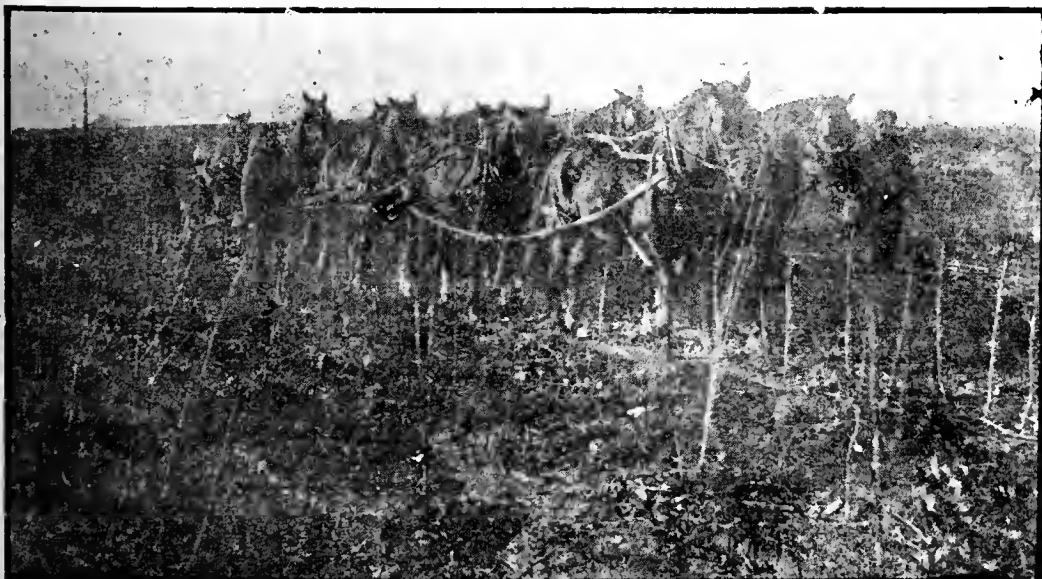


Fig. 10. Plenty of horse power ahead of the digger in the plum blocks, Jackson & Perkins Co.

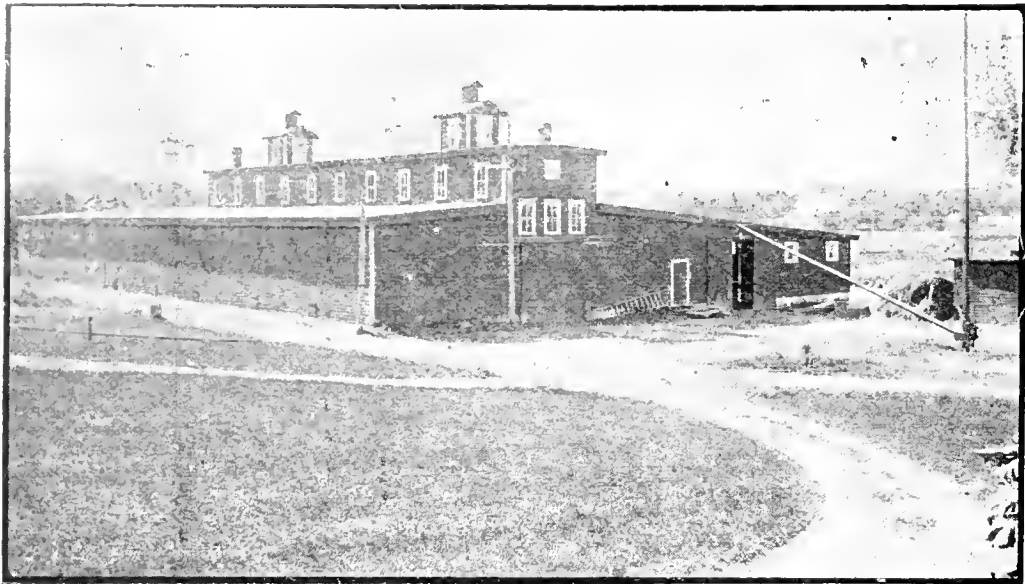


Fig. 11. The storage and packing cellar of Jackson & Perkins Co., showing crane for moving heavy boxes.

There are at present over one hundred head of cattle and two hundred and fifty hogs being fed in the firms' commodious barns. Roots are grown and ensilage is made in large quantities. These are supplemented by concentrated food, and the cattle are fed somewhat after the western fashion, in open sheds where the manure can be readily collected and saved.

In addition to carrying on their own special lines of business, this firm also acts as American representatives of Charles Detriché of Angers, France, who is an extensive grower of fruit stocks and ornamental trees and shrubs.

THE PERSONNEL OF THE FIRM.

Mr. C. H. Perkins, senior member of the firm, is fortunate in having a worthy ally and successor in his son, G. C., who carries a large share of the responsibility of managing the correspondence and office end of the business. In this regard there is a striking similarity between the two important nursery firms of Newark. C. W. Stuart will in all probability be succeeded by his active and aggressive son, while the same thing is occurring in the case of Jackson & Perkins.

It should be added that, occupying the same office building, is the firm of C. H. Perkins Co., of which Mr. C. H. Perkins, the senior member of the Jackson & Perkins Co. is also the prime mover, seconded by another son. This firm handles the output of six or seven large canning factories, located in various parts of the state. At the Newark factory, which is one of the largest, Jackson & Perkins have erected three large silos which are annually filled with by-products of the factory, such as pea straw, corn husks, etc., and are again used to great advantage in the stock feeding work of the firm.

Thus do certain sections enlivened by the presence of broadminded and aggressive men dispense comfort in the form of the aesthetics and

necessaries of life, not only upon the immediate neighborhood but upon the county at large.

THE ASIATIC LADY BIRD BEETLE.

(*Chilocorus similis*.)

BY WILMON NEWELL, STATE ENTOMOLOGIST OF GEORGIA.

During 1902 and 1903 considerable interest was manifested throughout the state in the introduction of the Asiatic Lady Bug, an imported insect from northern China, which feeds upon the San Jose scale. The first specimens of this insect were introduced into an orchard at Marshallville, in August 1902 by Professor W. M. Scott, and for a time they seemed to thrive and do well. During 1903 their increase was rapid, until in the latter part of the season it was possible to find as many as 200 of the insects to a tree, and a rough calculation showed that they had destroyed from 50 to 60 % of the scale.

At this time the insects were distributed to a number of other points in Georgia and new colonies started under what were thought to be favorable conditions.

The past winter was a severe one and was evidently too much for the beetles. In the orchard at Marshallville where they were so abundant last year, examinations this summer have failed to reveal a single individual. This orchard was, however, sprayed during the winter with the lime-sulphur wash

and this may in part account for the destruction of the lady bugs by the poisoning of their food supply. During the past month the writer has visited several of the points where these lady bugs were established and in no case are they abundant at present. In several cases they have entirely disappeared.

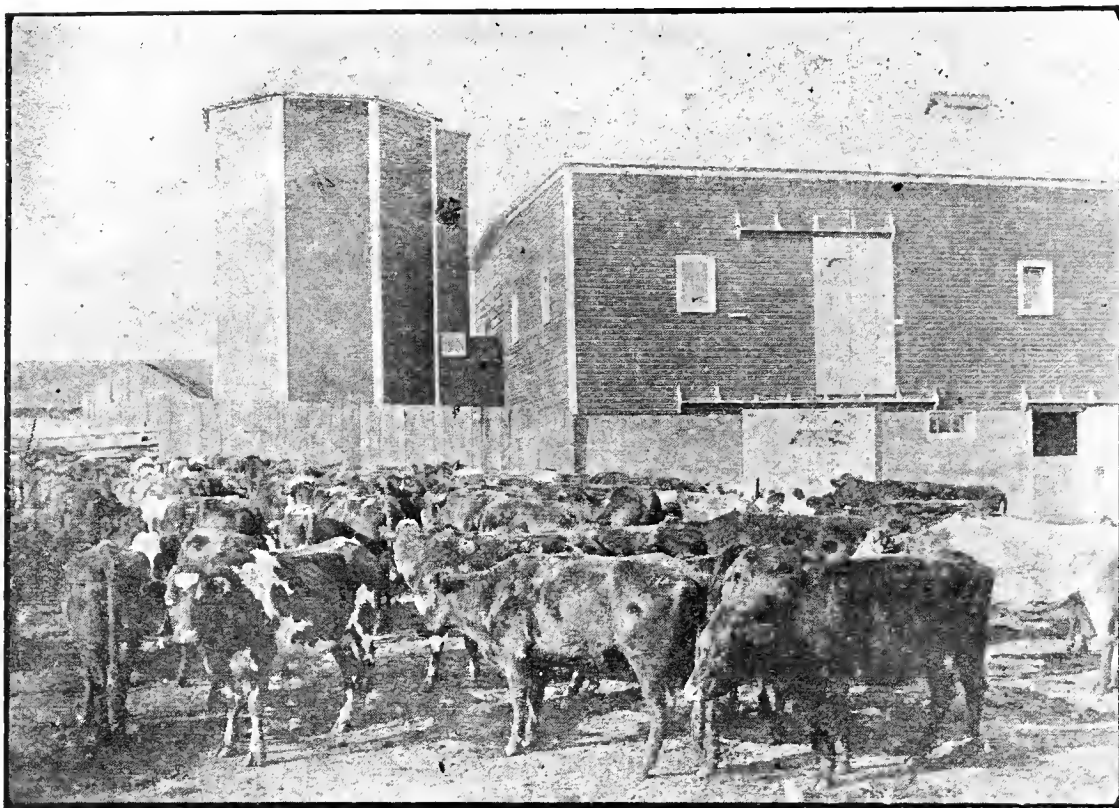


Fig 11. The fertilizer factory and some of the workers on the Jackson & Perkins Co. farm.



Fig. 12. More workers in the fertilizer factory of Jackson & Perkins Co.

It seems that both the spraying operations and the unfavorable winter have been responsible for this condition of affairs. We are forced now to conclude that there is only the remotest possible chance of this beneficial insect ever becoming abundant enough to control the San Jose scale in the South, although under favorable conditions it might become abundant enough to form a useful natural check to the scale in localities where it is not controlled by spraying.

The fruit grower is confronted by a peculiar problem when he tries to utilize this lady bug. If he allows the orchard to remain unsprayed in order that the scale may increase and form favorable conditions for the increase of the lady bugs, it is almost certain that the scale will have destroyed his orchard before the lady bugs have become numerous enough to check the scale; on the other hand if he sprays to control the scale, he destroys the lady bugs.

In spite of these discouraging features, when we consider the numbers attained by this beneficial insect in 1903, it might become a valuable adjunct in case we should have a succession of years of favorable to it. If distributed over a wide territory the chances of its surviving unfavor-

able conditions will be greatly increased. We have therefore taken what remaining specimens we could obtain and have transferred them to two orchards, far to the southward, in the hopes that under a warmer winter they will again reach the point of abundance that will enable us to distribute them all over Georgia. One of the places where we are trying to rear them is in extreme south Georgia, where spraying will not in the least interfere with them and where scale is everywhere abundant. The other orchard where we are attempting to propagate them is still further south, on the peninsula of Florida.

An interesting observation was made this summer upon the feeding habits of this species. In a plum orchard which

was quite badly infested with a cottony scale, *Pulvinaria amygdali*, we found the lady bugs feeding readily upon the egg masses of this insect. This *Pulvinaria* has at times become a very severe pest in orchards of plum and peach. As it is only

one-brooded, however, and does not multiply with near the rapidity that San Jose scale does, it is very possible that the Asiatic Lady Bug might in time control this pest entirely. The plum *Pulvinaria* need not offer any terrors to the fruit

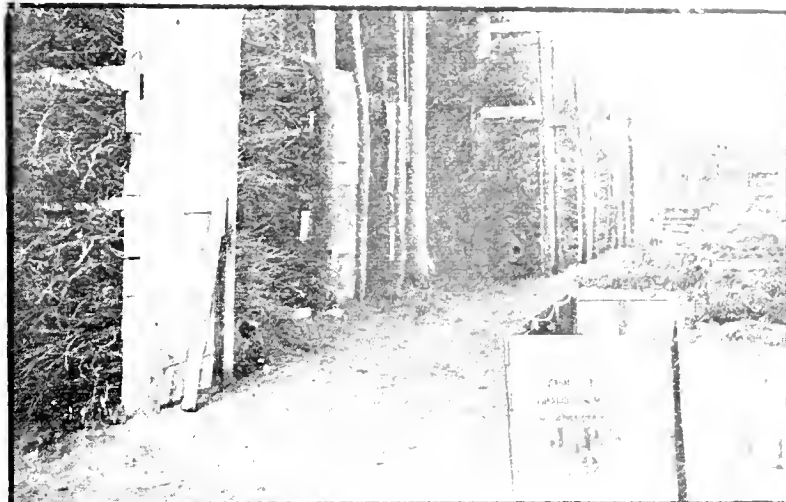


Fig. 13. Ornamental stock carefully packed in sand in Jackson & Perkins Co. cellar.



Fig. 14. The Proof of the Pudding. Three-year-old Apples. Jackson & Perkins Company.

growers as it passes the winter partially grown upon the twigs and trunk of the trees and will without doubt yield easily to any of the lime and sulphur washes.

BLACK-BEN DAVIS

One of the most interesting exhibits to the average apple grower to be seen in the Horticultural Building at the World's Fair was three plates of apples shown in the Iowa Exhibit: One plate each of Ben Davis, Gano and Black-Ben Davis.

For several years it has been claimed by some, that the Black-Ben and Gano are identical, though Stark Bros., the introducers, have strenuously contended that they are entirely distinct and that Black-Ben Davis is the best apple; and this contention seems now fully sustained by the facts. Certainly no well posted and discerning horticulturist could look upon the three varieties as exhibited by Iowa and claim that any two are identical. In addition to this exhibit, some splendid specimens of Black-Ben Davis were shown in the exhibits of Arkansas, Oregon, New Mexico, Washington, Colorado, Oklahoma, California and others. In every case the distinctiveness of Black-Ben Davis compared with Gano was clearly apparent, and among the best posted horticulturists it is now a conceded fact that Black-Ben Davis is the best apple of the three.

F. HOLSINGER,
Rosedale, Kas.

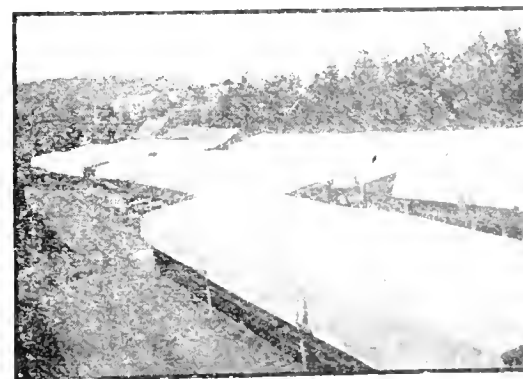


Fig. 16. The covered propagating frames of Jackson & Perkins Co.

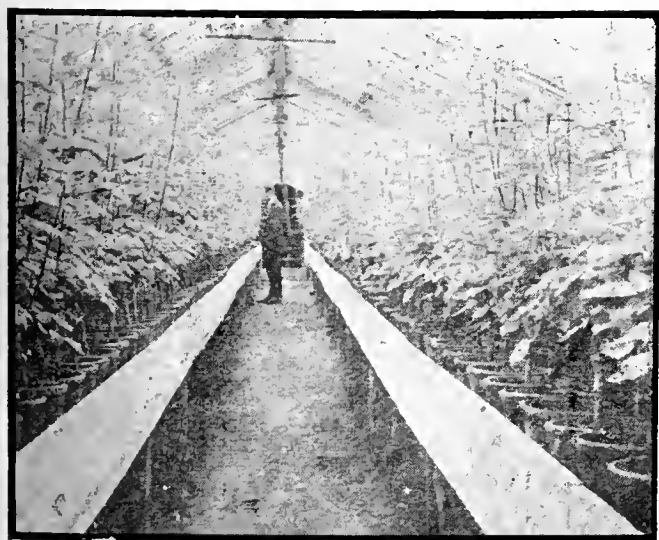


Fig. 15. Where roses are forced for propagating wood in Jackson & Perkins Co. nurseries.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Phoneton, O.; N. W. Hale, Knoxville, Tenn.; R. C. Berkmans, Augusta, Ga.; George A. Sweet, Dansville, N. Y.
Programme—Harlan P. Kelsey, Boston; H. B. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.
Publicity—Ralph T. Oleott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.
Exhibits—R. C. Berkmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.
To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

AMERICAN NURSERYMEN'S PROTECTIVE ASSOCIATION—President, R. C. Berkmans, Augusta, Ga.; vice-president, A. L. Brooke, secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.
NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y. Meets annually in January.
WESTERN WHOLESALE NURSERYMEN'S ASSOCIATION—President, F. H. Stannard, Ottawa, Kan.; secretary, E. J. Holman, Leavenworth, Kan. Meets in July and December at Kansas City, Mo.
SOUTHERN NURSERYMEN'S ASSOCIATION—President, W. T. Hood, Richmond, Va.; vice-president, Henry Chase, Huntsville, Ala.; secretary, J. C. Hale, Winchester, Tenn. Meets at Asheville, N. C., in August, 1904.
SOUTHWESTERN NURSERYMEN'S ASSOCIATION—President, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A. Taylor, Wynnewood, Ind. Terr.
TEXAS NURSERYMEN'S ASSOCIATION—President, E. M. Kirkpatrick, McKinney, Tex.; secretary, John S. Kerr, Sherman, Tex.
PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.
PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.
NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

We are informed by press dispatches and the information is confirmed by private correspondence that the Province of Quebec is to have an elaborate agricultural college and industrial school in the near future. This

AGRICULTURAL COLLEGE FOR QUEBEC. college is to be established and supported by the munificence of Sir William McDonald, the wealthy tobacco manufacturer of Montreal. Seven hundred acres

of land have been purchased about twenty miles from the city of Montreal, in a fine farming region and arrangements are being perfected for the immediate establishment of the college. The entire institution will be managed and directed by Professor James W. Robertson, the well known Commissioner of Agriculture and Dairying for the Dominion, who has resigned that position in order to enter the new field. Professor Robertson is a man full of energy and resource. The enterprise certainly starts out under most favorable auspices. We wish it every success.

No one will deny that much variation in the fruit of a good variety, of apples for instance, exists in almost any orchard that one may examine. A man who carefully selects specimens year after year for exhibition purposes, gets into the habit of going to the same trees for his show plates. Sometimes these slight variations are induced by the favorable situation of the tree with regard to food, light and general environment, but it occasionally occurs that the variation

SEARCH FOR AND PROPAGATE FAVORABLE VARIATIONS OF FRUIT.

is so radical as to separate the product of this particular tree distinctly from all others. In such cases, if the variant possesses desirable characteristics it should be propagated. We should then be doing with fruits what vegetable growers are practicing with beans and other annual crops. They, however, must fix the variation by the more or less tedious process of selection, whereas, the pomologist merely multiplies his desirable product by means of budding or grafting.

Not long ago, the writer's attention was called to a form of Baldwin which in general outline, coloring, and texture of flesh, more nearly resembled Sutton than it did Baldwin. This variety is under investigation and may be propagated, if it is found that the improvement is perpetuated year after year. It is a common thing for orchardists to speak of "gray baldwins" and "red baldwins" and buyers use these terms also. Does any one know whether these terms have a legitimate foundation or is the grayness or redness of the fruit due to soil or peculiar local conditions?

The fall of 1904 has seen quite a floral revolution in favor of the one time great favorite, the Chrysanthemum. The exhibitions have been unusually successful. The Massachusetts

THE CHRYSANTHEMUM SEASON:

Horticultural Society in conjunction with the Chrysanthemum Society of America, held a joint exhibition in Boston during the early part of November which was pronounced the best exhibition ever held in that city. The New York exhibition held at the American Institute, November 10-17 was pronounced the biggest event that the organization had ever carried through. The great

exhibition at St. Louis was also eminently successful. Added to these, are the numerous small exhibitions the country over. Nearly every little town where floral interests are at all represented, has had its chrysanthemum exhibition and most of them are recorded as being successful. This speaks well for the immediate future of this great greenhouse favorite, the Chrysanthemum.

The spring weeks are always over-filled with necessary work, consequently orchardists and nurserymen quite occasionally find themselves unable to do all the spraying that their original programme contemplated. In the case of those sprays which can only be applied when the tree is dormant, as lime and sulphur and crude petroleum, it is very important to know whether the spring is the only time when they can be applied efficaciously. Recent experiments by some of the Station workers, appear to show that fairly good results can be obtained by applying lime and sulphur in the late fall or early winter. The advisability of spraying at this time has been questioned by a large number of orchardists of the State. Some experiments designed to throw light on the subject, were undertaken by the Cornell Experiment Station last fall. Peach, pear plum, and apple trees were sprayed while still in leaf but after the wood had become fairly well ripened. Ordinarily it is not necessary to spray trees when in leaf, but some varieties hold their foliage late in the autumn after which there often occurs a favorable season for this work in October, so that if it is possible to spray at this season with good effect, it is well that we should know it. The trees sprayed at Cornell Experiment Station dropped their leaves soon after the spray was applied. There was no apparent injury to the terminal shoots and in the case of plums, pears and apples it was not proved that the buds were injured, although there were indications that some injury to the blossoms did occur. The peach buds were unquestionably injured to the extent of perhaps five or ten per cent. both leaf and fruit, but as the trees were subsequently root-killed by the winter, their final behavior could not be noted.

The entomologist of the New York Experiment Station says, in regard to the experiments carried on at Geneva that, "There is some doubt as to the effects of fall spraying upon fruit buds. Some experiments conducted in 1902 showed that such treatment was not detrimental to Elberta or Crosby peaches, Burbank or Lombard plums, and in the destruction of scale compared favorably with results obtained by early spring application. It is true that the effects of such sprays often vary with the weather following the applications, and with the condition of the trees themselves, so that a single test cannot be considered a certain index of the value of such treatments." In short, it does not seem that there is any serious danger of injuring the tree by using the lime and sulphur sprays in the autumn and that San Jose scale may be treated at this time apparently as effectually as when sprayed in the spring.

Where nurseries are infested with plant lice, it looks as if this might be a promising time to destroy the eggs which remain upon the twigs in the fall and reproduce little sucking insects in the spring. We have had some intimation that certain sections of the country were again infested with

plant lice the past summer. It is very important that the nurserymen sections infested with plank lice should exercise every possible precaution in cleaning their stock before the opening of another summer. Trees that are dug and celled should have their tops dipped in lime and sulphur this fall before storing or during the dormant period. Altogether, the fall sulphur washes offer a rather promising means of destroying some of our injurious insects.

As we have already seen by the evidence mainly published in the November issue, by members of the Association of American Nurserymen, the year has been a satisfactory one on the whole. It has not been without its discouragements and drawbacks. When do we find a year without these? It has been varied climatically. This has given new experience; has forced the adoption of new methods; but experience carefully conned is capital for the future. The man who comes up smiling after a hard round in life's battle, is the man who is altogether likely to win in a hard run; is the man who comes out first in the average of events. "The man worth while is the man who can smile, when everything goes dead wrong," says Ella Wheeler Wilcox. (Ella gets off some good things, notwithstanding the halo of "yellow" which usually surrounds her sayings.)

We believe at any rate that the balance sheet for 1904 will demonstrate to the greater number of members of our circle that they are richer not only by reason of increased financial endowment but are richer in garnered experience, in friendships and in wholesome and sound business ties. These are often more valuable than bank accounts.

This journal underwent a change of editorial management during the year. When the present editor was installed he expressed in the most impressive manner possible his desire, that this journal should be the mouth piece and exponent of the best principles and practices of the Nurserymen of the United States and Canada. This wish is again reiterated and the request repeated that the members of the association will aid him by counsel and support in placing this paper upon a high plane in the ranks of the horticultural journals of this and other countries.

Speaking editorially, we wish to say that our association by correspondence during the past six months with the rank and file of American nurserymen has been of the pleasantest character. It has also been instructive in the highest degree. Our earnest hope is that it may thus continue. We shall with a willing spirit do the best in our power for the individual as well as the collective body. We rely upon your support in the future as in the past.

On behalf of the Business Manager and the President the Editor presents thanks for past favors, and wishes the patrons of the NATIONAL NURSERYMAN a happy and prosperous New Year.

The man who meets no opposition usually pursues a dead level existence.

Some people are so proud of their ancestry that they never exert themselves to benefit posterity.

The man who prepares for death wastes his time; the man who prepares to live is wise indeed.

The volume containing the record of 1904 is closed. Before sealing it, let us hope that the account which we might head "Experience" has been carefully balanced. What did we lose that might have been avoided;

EXIT THE OLD:

ENTER THE

NEW.

when was bad management conspicuously in evidence; in what transactions did lack of confidence in our fellowmen or in ourselves, or over-confidence in ourselves become apparent and result in loss; in what respects did our judgment fail or did the enterprise lag for want of knowledge on our part?

The year has greatly added to our store of experience. It should have tempered our judgment; it should have increased our worldly goods; it should have widened our sympathies and enlarged our friendships. Is it worth while to ask ourselves some of these questions?

It is a trite thing to say that we should at the end of the year balance our accounts and all that. Nevertheless some of these trite things are unquestionably true. This is one in which we thor-

oughly believe. You have seen men in all walks of life who never stop to think; and you have seen the same men in the nursery business. They are too busy blundering ahead. Is it not often a fact that a man who apparently wastes time in considering ways and means, outdistances his harder worked but less thought-

ful competitor? A friend of ours has a work-shop in the top of his house. In it he has a bench and a tool-chest. The chest is equipped with a complete set of the best tools obtainable. He does not fill in many hours in actual accomplishment; in other words he does not carpenter a great deal, but he does spend a good deal of time in keeping his tools in first-class order by sharpening them frequently. The business man, and the nurseryman keep their business tools in order by reading, by studying and by thoughtful consideration of the changing phases of their pleasant avocation. The man who is excessively busy is often so because of unsystematic methods; and unsystematic methods prevail when the worker does not study his enterprise and plan his campaign.

LAWRENCE PEAR.

Just now the Lawrence is in prime eating condition, and any one who enjoys pears will rarely forget the flavor of a Lawrence, when eaten in the surroundings of the family room along side the fireplace about ten o'clock at night! The Lawrence is not the finest in quality of all pears but it is exceedingly "easy to take," when nicely ripened. The fruit is of medium size, smooth and regular in form; the flesh is pleasantly sweet, and melting. It is not as highly flavored as Malines but is less cloying than Seckel. How does Lawrence succeed with you?

Quiz Column.

DISPOSAL OF SCALE INFESTED STOCK.

EDITOR NATIONAL NURSERYMAN

DEAR SIR: Can you give us any information as to whether there is a state law in New Jersey, which obliges a person to burn nursery stock found infested with San Jose scale? The reason I ask the question is this: A week or so ago we shipped a bill of stock to a party in New Jersey, and received word from them that some of the trees had been rejected on account of their having San Jose scale. We wrote them in reply that the stock had been fumigated with hydrocyanic acid gas and the scale was therefore in all probability dead and harmless, and requested that such trees be returned to us as we wished to have the scale examined to see if it were alive or dead.

In a day or so we received answer that according to State Law the trees had to be burned and were, so it was impossible to return them.

INQUIRER.

ANSWER BY PROFESSOR J. B. SMITH, STATE ENTOMOLOGIST OF NEW JERSEY

Replying specifically to your question, there is nothing to prevent the return to the shippers of any stock found unacceptable for any reason.

When I get track of a lot of sealy stock in a nursery I simply notify that nursery-

man that he must not use it on penalty of having his certificate withdrawn. He can send it back or destroy it as he may arrange. If I find infested stock from outside, in the hands of a grower I again notify him of its character and advise him not to plant. I also notify the nurseryman who sent the stock and the inspector under whose certificate it arrived. We never destroy without notifying the shippers.

New Brunswick, N. J.



Fig. 17. Jackson & Perkins Co. have a national reputation as rose growers. A photo taken during the blooming season.

Obituary.

EDITOR NATIONAL NURSERYMAN:

Will you kindly notify the readers of the NATIONAL NURSERYMAN in the next issue, of the death of John Rupert of Conneautville, Pa. His death occurred on December 6 in an Erie hospital. Mr. Rupert was well known and highly regarded by nurserymen of Brighton, having put up his sales here the past thirty years.

Brighton, N. Y.

J. F. NORRIS.

THE WINTER STORAGE OF NURSERY STOCK.

A VALUABLE COLLECTION OF OPINIONS—STATEMENTS OF PRACTICE.

In answer to a request by the NATIONAL NURSERYMAN for information regarding the most popular method of wintering nursery stock, the following interesting replies have been received. We are very grateful to those who have taken the trouble to answer our circular letter.

Ed.

WESTERN NEW YORK.

In our opinion the best way to store nursery stock in cellars is to cord it up in bundles, using liberal quantities of damp excelsior on the roots, which should always be on an aisle so that they may get a good circulation of air.

Rochester.

BROWN BROTHERS COMPANY. ✓

In a frost proof cellar we prefer to lay the trees in a horizontal position, reversing the roots with each layer. Spread a thin covering of slightly dampened moss or sauer kraut over the roots of each layer and fill all open spaces near the roots with the packing. We build these tiers up as high as may be desirable. We aim to keep the cellar at an even temperature, slightly above freezing. This has been our practice for several years and the stock has come out in splendid shape in the spring.

In cellars that are liable to freeze, we prefer to trench the stock in standing position in bundles of from ten to fifteen trees.

Seneca, N. Y.

W. P. RUPERT & SONS.

Our storage buildings are all built on the surface of the ground without any excavations. We think the chief elements of success in keeping the stock in good condition are to have good ventilation and avoid any excess of moisture and these ends are more easily obtained in an above-ground structure. The building we erected last is 60 ft.x160 ft. with a packing shed annex which is 40 ft.x160 ft. In the storage part of this building are eight air boxes or shafts running from near the ground to eupolas that project above the roof. These keep the air pure and fresh and since their erection we have had no difficulty in carrying the stock through in good condition.

In packing the stock away for winter we have always corded it up with the root-ends of the bundles butted against each other in the center of the stacks. This often necessitates using wooden supports to hold up the tops of the trees to the same level in the stacks as the roots but it enables us to keep the roots well covered and protected. We do not quite like the method of stacking with the root-ends of the bundles on the outside and the tops in the center although we are aware that many of the nurserymen are using this method and apparently with perfect success. We are careful to cover the roots well and feel safer to have them that way than exposed at the sides of the stacks with just a little moss chinked in among them. Fruit trees and large stock of all sorts are packed in moss but for roses and small stock we use sand.

Newark, N. Y.

JACKSON & PERKINS CO.

IN THE MIDDLE WEST.

MINNESOTA.

We have for several years followed the plan of packing trees away in bins, and placing the roots against the walls of bins in such a manner as to raise the tops of the first layer about three feet, interlacing them, and covering the roots with moist sand. A little rye straw is used to hold the sand next to the roots. We use sand because we have plenty of it handy, and we found that it packed the trees in tight so that they kept well and we could put a large number in a given space. Last winter in part of our cellar we used shingle shavings instead of sand, and liked it. Cannot get quite as many trees in the bins, but shavings are more easily handled than sand and keeps the stock well.

We were successful last winter in storing trees in pits. We trenched them in a warm, sandy side-hill. We first made trenches two feet deep and six feet wide; then, beginning at the upper end, we trenched the trees, laying the tops of the first row on the ground and then following

with other layers, to the lower end of the pit. We then covered the trees over with straw and on the straw put six inches of sand. When the covering of sand was frozen we covered the entire pit with straw to prevent further freezing. The trees were not stripped, but were taken to the pit as soon as dug and covered up. In the spring we found the leaves had all dropped off and the trees were in fine condition. We shall try the experiment again this winter. If they can be protected in this way it will save the expense of costly cellars and there is no danger from fire.

Lake City.

THE JEWELL NURSERY CO.

MICHIGAN.

We have not been persuaded, although many of our prominent nurserymen have advocated cording up trees in cold storage cellars. We have cellars that we store peach, and tender varieties of pears, sweet cherries and plums, but heel every thing in. We have to use more space but feel safer by so doing. We know by experience that the natural element for fish is water, also the roots of trees is mother earth.

Kalamazoo, Mich.

L. G. BRAGG.

OHIO.

We have adopted what we call the cording system for winter packing of stock in our cellars. We like this method much better than heeling the trees in sand. The trees carry through the winter better and the method is more satisfactory in many ways. By cording we mean we lay the trees up in ricks with the roots on the outside, packing them up in moss and excelsior. After the ricks are as high as we wish to make them, we go through the cellar and place moss among the roots of the trees. This moss is to keep the roots of the trees moist and in this way we are not troubled with mould on the stock, or the fungus that is so troublesome when trees are heeled in, in the sand.

Troy.

GEO. PETERS & Co.

Referring to your subject of "Methods of storing Nursery stock in Cellars," we believe the past severe winter taught the average nurseryman the importance of getting under cover, in some shape, his salable stock at least. There are various ways of keeping stock in storage; our *old way* used to be to *heel in*, in cellar; now we do very little of this but cord up ricks of trees in moss and excelsior mixed, using plenty of the mixture, *moderately damp* only,—too wet we believe being more detrimental than too dry,—though of course this depends largely on the location and conditions of the cellar.

For the past five years we have practiced the above plan using plenty of ventilation in good weather and with the very best of results. With this system several times as many trees can be packed in the same space as they would occupy if heeled in the earth; and if properly handled will come out in just as good, if not better condition, in the spring.

Perry, O.

L. GREEN & SON CO., BY F. D. GREEN.

IOWA.

We pack trees in cellar in ricks six to ten feet high with plenty of wet shingle tow on roots. This we have done for twenty years or more. Stock always comes out in spring in best condition.

Davenport, Ia.

NICHOLS & LORTON.

I do not think, that the practice of some firms of tying stock in bundles, and stacking it without moss or excelsior among the roots, simply covering the outside of the rick, is one that is calculated to maintain the vitality of the stock so treated. I have however had but little experience in cellaring stock.

Charles City, Ia.

E. M. SHERMAN.

NEW JERSEY.

In recent years I have had but little experience in storing nursery stock in cellars for the reason that where I am now located, the frost ordinarily leaves the ground early enough in the spring to render extensive cellaring unnecessary.

I am also handling almost exclusively, ornamental stock, the orders for which are more easily filled from the field than from the cellar. My cellar has walls eight feet in the clear and is almost entirely under ground. The excavation has been made in almost pure sand and while the cellar is dry, there is no danger of stock placed in it drying out. I have had the best of success in cording up the stock in cribs, with no

packing material between the bundles, but covering both tops and roots with a light layer of moss which has been sufficient to keep the plants from drying out. Stock so treated has come out of the cellar as fresh in the spring as though just dug and when transplanted without exposure has given equally as good results as freshly dug plants. Seedling stock is kept heeled in, in sand and if corded up, care must be taken to put on sufficient sand to prevent its becoming dry.

Elizabeth, N. J.

H. T. JONES

PENNSYLVANIA.

In reply to yours of the 29th concerning the storing of nursery stock would say, that as growers of ornamental stock exclusively we have not been in the habit of storing any large quantities of it. It is difficult for us to tell just how much, and of what varieties we would sell, consequently if we were to dig a lot of assorted shrubs and store them we might have to plant a considerable quantity of them in the spring and the varieties we did not store might be the ones we would have call for most largely. These we would have to dig from the field anyway, consequently we have found it impracticable to store much stock, finding it much more convenient to dig and fill orders right from the open ground. We can do this to good advantage, because our spring season usually opens up so early here that we can commence digging orders by the 15th of March.

Another reason why we do not store this stock, is because our spring orders are not accumulated during the fall, we usually do not get our orders until our customers want them shipped, the orders coming right in at that period and we digging and shipping them off at once. What few shrubs we have stored over winter, have been stored in the "heeling in" process; that is to say, we have the floor of our storage house covered with about a foot or fifteen inches of sand and the plants are bedded right in the sand, the same as they would be if heeled in out of doors. We think this method more satisfactory than any other, but of course, it takes lots of room and a nurseryman who is storing large quantities of stock could not practice it. We have also stored in bins, but mostly use sand for protecting the roots, though we have used sawdust, packing, and moss, but there is nothing that keeps the roots so fresh as sand.

Dreshertown, Pa.

THOMAS MEEHAN & SONS, Inc.

MARYLAND.

In this section it is not necessary to cellar nursery stock during the winter for early spring shipment, as we can usually begin digging in March for our spring trade. We have handled a little cellared stock and must say that it does not always give satisfaction and we would much prefer trees that have not been cellared. Roses invariably go to pieces in the spring when taken from cellars. This is the case also with much other stock. We do not buy stock that has been cellared if we can help it.

Baltimore, Md.

FRANKLIN DAVIS NURSERY CO.

The best method we have for storing nursery stock is to trench in sand in the packing house.

Berlin, Md.

J. G. HARRISON & SONS.

GEORGIA.

Owing to the fact that we are seldom frozen up for more than a day or so at a time in this section it is not necessary for us to cellar nursery stock. We, however, find that when trees are packed in old sawdust the results are much more satisfactory than when packed in sphalum.

We have never had any stock to heat when packed in old sawdust which has gone through fermentation.

Augusta.

P. J. BERCKMANS Co.

GRANGE SCHOLARSHIPS IN CORNELL COLLEGE OF AGRICULTURE, ITHACA, N. Y.

The move which the New York State Grange made last winter providing for four scholarships in Cornell college of agriculture, worth \$50 each, to be given to the two men and the two women who pass the best examinations, is a very important advance in agricultural education. In doing this, the Grange is promoting the best ideals which the fraternity stands for, along educational lines. All applications for these scholarships should be made to the master of the Pomona Grange in the district in which the intending applicant resides.

Doings of Societies.

—Apple Growers' Congress: H. M. Dunlap, Savoy, Illinois, re-elected president. T. C. Wilson, Hannibal, Missouri, re-elected secretary.

—The Maine Pomological Society met November 16th to 18th at Skowhegan. The session was well attended, profitable and interesting. Z. P. Gilbert and D. H. Knowlton were re-elected president and secretary respectively.

—The meeting of the New York State Fruit Growers' at Geneva on January 11th and 12th (not 4th and 5th as first announced) contains a number of items of interest among which we note a judging contest after the score card method by the Horticultural students of Cornell University.

—The Twelfth National Irrigation Congress met at El Paso, Texas, November 18th. The meeting was large and enthusiastic. In connection with it, there was held an exhibition of vegetables, fruit, and other farm products, grown on irrigated farms. This feature was said to be quite impressive and certainly instructive.

—American Forestry Association: An important meeting of this association will be held at Washington on January 2d, the sessions will continue until the 6th. This particular convention is for the purpose of considering some matters in connection with forestry and irrigation policies. The secretary of the association is W. L. Hall, Atlantic Building, Washington.

—The Western New York Horticultural Society is making elaborate preparations for a record-breaking meeting to punctuate the half century mark of its existence which will have been reached when the society convenes in its own familiar quarters on January 27th and 28th. The energetic secretary, John Hall, of Rochester, is leaving no stone unturned in planning for an enthusiastic and epoch making meeting.

—The Boll Weevil Convention: The Louisiana cotton planters are very much in earnest in their efforts to find feasible means of checking the devastations of the Boll Weevil. The second National meeting of the Louisiana Cotton Boll Weevil Association was held at Shreveport, Louisiana, early in November. Committees were struck and measures adapted for the campaign against this dangerous enemy. Frequent meetings of the association will be held.

—The Maine Pomological Society has appointed committees to secure legislation and the appropriation of necessary funds to carry on a war of extermination against the Brown-tail moth and Gypsy Moth which are in Massachusetts and may invade Maine. They have also appointed committees to report upon the grading and inspecting of fruit, to consider the question of packages, and to report upon the position of co-operation with the officers of the agricultural fairs.

—The Ontario Fruit Growers' Association held its annual meeting at Toronto, November 17th and 18th. The meeting was held in connection with the provincial fruit and flower show which continued throughout the week. This fruit show seems to have been a success. The meeting of the society was hardly as well attended and as successful as those of former years which have been held in smaller places. It is the experience of most societies that small towns situated in fruit growing centers, give the best turnouts. A. McNeill, Chief of the Fruit Division of the Department of Agriculture was elected president. Mr. H. B. Cowan was re-elected secretary and editor of the *Canadian Horticulturist*.

GOLD MEDAL.

The Perfection currant originated by C. G. Hooker, and now being introduced by C. M. Hooker & Sons, Rochester, N. Y., was awarded the Gold Medal at the World's Fair, St. Louis. This makes the third medal which this currant has taken, as it received the \$50.00 Barry Gold Medal of the Western New York Horticultural Society in 1901 and the Pan-American Medal the same year. It has never failed to take highest honors wherever exhibited.

This is a great year in Texas. We are making large sales. Allow me to give myself the pleasure of enclosing one dollar for the NATIONAL NURSERYMAN. It is a pleasure to read it. F. T. RAMSEY.

Correspondence.

INEFFICIENT FREIGHT SERVICE.

EDITOR NATIONAL NURSERYMAN.

The account of the expeditious shipment of Orange trees from California to Palestine in the NATIONAL NURSERYMAN for November attracted my attention. It is certainly gratifying to know that there is good transportation service from California to the Holy Land; and many who have had experience in transcontinental shipments no doubt hope the time may come when similar results may be obtainable in making shipments from California and the extreme West to Eastern points in our own country. That time has evidently not yet arrived.

Only a short time ago, in my own consignments from California, I received a shipment of some specimen orange trees and other stock, which consignment left Niles, California, October 14th, supposedly on the "through-to-New York" fast service line; and although every effort was made to have the consignment followed by wire tracer to avoid delay, the shipment did not arrive here at New York until November 23d, thus being nearly six weeks in transit.

Owing to the fact that the Orange trees were sent in tubs and the other stock specially well packed with balls, all the material arrived in very good condition, notwithstanding the extraordinary delay.

Such experiences, however, indicate the need of closer co-operation between the railroad companies, and committees and individuals in the trade toward reducing to the minimum such delays; and the importance of having a system adopted that will insure prompt forwarding and delivery of nursery and plant material in all parts of the country. At a less favorable time in the season, such a delay would mean a serious if not total loss, either to the shipper or consignee, or the railroad, or both.

New York.

FRED W. KELSEY,
Importer.

DEPARTMENTAL BOOK-KEEPING.

I notice that in the November NURSERYMAN, Jackson & Perkins Company mention the need of departmental book-keeping methods. This calls our attention to our experience. We found that by charging each particular nursery crop with the cost of field preparation, planting, cultivation, digging and placing on the yard for sale, we secured valuable data. Not only in regard to what it cost to grow the different lines of stock, but ultimately how to cheapen the cost of production. To illustrate; We learned that it cost us \$16.00 a thousand to grow 1-1 Concord grape vines. On an average we could buy them more cheaply at Fredonia. We learned that on our excellent soil in Nebraska, we could grow apple and forest seedlings to advantage. Records were kept from season to season and then compared, enabling us to determine how much seed to plant per acre and how best to handle.

To illustrate: In the growing of ash seedlings, twenty bushels of ash seed planted with machinery of our own adaptation, in drills twenty-two inches apart on carefully prepared land, would grow an average of 200,000 per acre, at a cost of \$40.00 per acre or twenty cents per thousand. This

included the preparation of the soil, the gathering and planting of the seed, cultivation, digging, counting and putting in hundreds and trenching them in on the yard. Now when we first began to keep accounts it cost us on an average, 50 cents a thousand to do this work. The cheapening of production was gained by better preparation of the soil, getting a perfect stand, the planting of just the right amount per acre and the employment of half grown boys, under an efficient foreman to do the work of cultivating, weeding and counting.

We likewise found that apple trees could be grown in this locality for one half of what it costs to purchase them in the open market, but that it is cheaper to buy cherry trees than to graft them.

We have found that two things are gained by accounts of that character. First, what not to grow; second, by comparing the different field plats from season to season to determine just how to produce the largest and best possible stock for the least possible expense.

The manufacturer finds himself compelled to give very close attention to the details of production. He steadily seeks to improve the quality and to lessen the cost.

Crete, Nebraska.

E. F. STEPHENS.

Note and Comment.

FOREIGN COMMERCE.

The total foreign commerce of the United States in the past year seems likely to exceed that of any preceding year. The total exports will probably fall slightly below those of 1903 and of the years 1900 and 1901, but as the total imports will materially exceed those of any preceding calendar year, the grand total of imports and exports combined will probably be the largest in the history of our commerce.

IMPORTANT NURSERY ITEM.

Dear Friends:—This is to announce the arrival of the Greatest Boy on earth. Weighs ten and one-fourth pounds; eats like a harvest hand. He is "heard from" frequently and listened to by all. Mother and Boy doing fine. Sincerely yours,

Spaulding, Illinois, Dec. 9th.

IRVING SPAULDING.

THE ENGLISH APPLE MARKET.

Latest cable advices from the principal apple markets in Great Britain report fairly steady markets for well conditioned parcels and for such they are selling at prices that give net here in Boston all the way from \$3.00 to \$3.75 per barrel for Kings. Golden Russets \$2.50 to \$3.25 per barrel. Northern Spies and Spitz \$2.00 to \$2.50 per barrel. Rhode Island Greenings \$1.75 to \$2.50 per barrel. Baldwins and Ben Davis from \$1.50 to \$2.00 per barrel. These prices are for good long lines of each variety. Small lines, badly selected and packed are selling to give nets from 25 to 50c under these prices. The demand this week has been largely for fine fruit for the Christmas market.

Boston, Dec. 15th.

GEO. A. COCHRANE, Apple Exporter.

I have pleasure in enclosing you subscription for another year. The NATIONAL NURSERYMAN I find one of the most convenient mediums for keeping informed upon, and in touch with, what is going on in the trade of any publication in the country. Wishing you every success.

No. 150 Broadway, New York.

FRED'K W. KELSEY.

Please find enclosed check for \$1.00 (one dollar) to renew my subscription to the NATIONAL NURSERYMAN. I find we cannot do without it, the information in it alone, is worth double the money. It brings us in touch with the nurserymen of the south and west, and no longer do we feel like strangers.

Seabrook, N. H.

ELLSWORTH BROWN & Co.

We will have a surplus to offer the wholesale trade. We would ask you to insert the enclosed advertisement in January issue. Your paper is an excellent medium to reach the trade.

Waukegan, La.

J. WRAGG & SONS Co.

January Trade Jottings.

The Burnham Boilers are good ones.

Try Harris, of Harrisville, W. Va., for budded apples.

Note Scarff's (New Carlisle, Ohio) novelties in small fruits.

Mr. Mundenhall recommends the Speer grafting machine very highly.

O. F. Smith Blackfoot, Idaho, has an opening for a bright young man.

See "ads" of parties who wish to close contracts with good stock growers.

Observe the fine assortment of stove and hardy plants offered by Bobbink & Atkins.

Hardy perennials; always useful, always floriferous. Consult Dreer's extensive list.

The Oakland Nurseries of Manchester, Conn., carry a complete line of nursery stock.

The Ruby Red Raspberry is being pushed by C. G. Velie & Son of Marlboro, N. Y.

Lee's Summit Nurseries are for sale. For information write to J. C. Blair, Kansas City, Mo.

The Easterly Nursery Co., of Cleveland, Tenn., offer June Bud peach in quantity.

Apple seedlings and grafts made to order are specialties of Cooper & Moncrieff, Winfield, Kansas.

The Chickamaugua Nurseries of Chattanooga, Tenn., have propagated an extensive line of peaches.

Weber & Sons Nursery Co., of Nursery, Mo., secured a grand prize for ornamentals at St. Louis World's Fair.

The new International Encyclopaedia by Dodd, Mead & Co., is especially complete in matters of interest to the nurseryman.

Peters & Skinner offer a fine line of large fruits apple seedlings and shade trees. They are to be addressed North Topeka, Kansas.

J. G. Harrison & Sons, Berlin, Md., have a large stock of Keiffer's peach, apple, Norway and silver maples and strawberry plants.

Jackson & Perkins Co., Newark, N. Y., offer an unusually extensive line of roses, flowering shrubs, deciduous and evergreen ornamentals.

Ward-Dickey are manufacturers of Box Straps which they offer to the nurserymen in our advertising columns. Write them for sample and prices.

A CURIOUS ACCIDENT.

One William Jackson, of Bethel Hill, Pa., was engaged in picking apples on November 3rd. He used a bag suspended from his shoulders as a receptacle. When near the top of the tree he lost his balance and falling downward through the branches of the tree, the bag which was nearly full of apples, went on one side of the branch and the man on the other. In this way, the man actually strangled to death. His body was found in the tree a few hours later.

GOOD PROSPECTS.

Ernest H. Balco, a former Rochester boy, now manager of The Griesa Nurseries, Lawrence, Kansas, called upon old friends and Nurserymen in the Flower City during the holidays. He reports good prospects in the famous Sunflower State.

—G. A. Harrison, of the firm J. G. Harrison & Sons, Berlin, Md., called upon Western New York nurserymen during the last days of the old year.

—Saginaw, Michigan, is to have a twenty acre park in a convenient location in that city, through the thoughtfulness and generosity of Governor Bliss of Michigan. Twenty acres will make a delightful breathing place for the people.

VALUE OF ADVERTISING.

Agricultural Advertising for November has the following to say about the advertising methods of Thomas Meehan & Sons, Germantown, Dreshertown and Philadelphia: "They are among those nurserymen who fully appreciate the value of plenty of good advertising literature. They keep themselves constantly before the people by the frequent issuing of seasonable catalogues, good booklets, folders and price lists. Their autumn catalogue for 1904 is something out of the ordinary and has been a prominent factor in increasing their business six times over that done last fall. Mr. Charles W. Kesser, head of the advertising department, takes a good deal of pride in this book, which is thoroughly warranted, especially as it was produced on economical lines, depending for originality upon the manner of treating the various subjects and the mechanical arrangement employed."

INCREASE OF FREIGHT RATES.

January 1st, 1903, the Trunk Line Classification Committee raised the classification on nursery stock in boxes, less than carload lots from third to second class, an increase amounting to about 25 per cent.

January 1st, 1904, imported nursery stock, seedlings, etc. were required to pay freight as "live plants" instead of trees, thus taking a higher rate.

April 6th, 1904, perishable freight (including trees) was not to be receipted for "refrigerator car through to destination" in less than carload lots. These changes applied to all the roads in the Trunk line territory east of the Mississippi river. The rating of imported nursery stocks as "live plants" instead of trees has since July 1st, 1904, been rescinded, owing to strong representations made by nurserymen and others interested. The other two rulings still hold and are bearing very heavily on the trade, especially the increase of freight rates. Three more such sweeping changes in the next two years would put us out of business. To illustrate, the writer quotes from a letter received from a heavy western buyer early in December last. "Freight rates are so high from your section now in less than carload lots that we could not afford to ship in that way. We should think that if you Eastern nurserymen intend to do business West you would have the classification of nursery stock restored to where it formerly was. Get all you can in the ear and *cancel the balance of the order.*"

It is high time that through serious, united effort the Railroads be made to see the error of their ways. If each nurseryman east of the Mississippi river would write or see his division freight agent, ascertain who represents the roads over which he ships, on the Classification Committee and write that member protesting against the increased rates and requesting that trees in less than carloads lots be put back to third class as they formerly were, backing the matter up with any arguments that he may have at hand, we feel sure that the work of the Freight Committee would be materially helped. This is a very important matter. You can help. Do what you can and do it at once.

IRVING ROUSE, Chairman,
Eastern Nurserymen's Freight Committee.

Obituary.

DEATH OF PROFESSOR BUDD.

As we go to press the death of Professor Joseph L. Budd, for many years head of the Horticultural Department of the Iowa State College, is announced from San Antonio, Texas. For many years Professor Budd was a prominent figure in the horticulture of the middle west.

FEIGLY.

On November 4th, at Medway, Ohio, D. Feigly passed away at the age of 76 years. His death was not expected as his illness dated back several months.

Mr. Feigly was deeply interested in tree growing and allied work. He was of an inventive turn and during his long and useful life, devised and patented several farm implements including breaking plows, a potato digger and a tree digger. We are indebted to his daughter, Miss Lizzie Feigly, for the substance of this note.

AMONG THE EXPERIMENT STATION WORKERS.

V. A. Clark, Assistant Horticulturist of the New York Experiment Station, Geneva, has been elected Horticulturist of the Arizona Station and has taken up work in his new field.

FLORIDA EXPERIMENT STATION—There appears to have been a serious complication in this station recently. The president, entomologist, chemist and assistant chemist, were requested to hand in their resignations.

IOWA—The State College at Ames has added a course in forestry to its curriculum. This will be in the hands of H. E. Baker who is at present connected with the Bureau of Forestry. He will devote one-half of his time to forestry work of the college and one-half to the Bureau of Forestry.

NEW HAMPSHIRE—Professor E. Dwight Sanderson, late of Delaware and Texas, succeeds Professor C. M. Weed as entomologist of the college and experiment station.

OHIO—Professor H. D. Gossard formerly of Florida, has been appointed Entomologist at the Experiment Station at Wooster.

WISCONSIN—Walter S. Brown of Cornell College of Agriculture has been appointed, Instructor in Horticulture and Experiment Station, Assistant in the University of Wisconsin.

*THE UNITED STATES DEPARTMENT OF AGRICULTURE has issued a farmers' bulletin No. 203, a publication entitled "Canned Fruit, Preserves and Jellies," prepared by the noted domestic economist, Maria Parloa. This useful document can be obtained free of charge by applying to the Secretary of Agriculture, Washington, D. C.

KANSAS—The State Board of Agriculture through its efficient Secretary, Mr. F. D. Coburn, has issued a report on potato production. This like all reports by the same author is thorough, comprehensive, and attractively gotten up. Not only is the potato treated from the cultural standpoint but also from the standpoint of its place in the human dietary. Copies of the bulletin may be obtained by addressing the Secretary of the Kansas State Board of Agriculture, Topeka.

CORNELL, NEW YORK—R. S. Northrop who for the past year has been instructor in horticulture has recently been elected professor of Horticulture and Botany in the Utah agricultural college, situated at Logan. Mr. Northrop left to take up his new duties on Nov. 18.

Since the last report of the co-operative peony test large consignments have been received from Charlton & Son and Ellwanger & Barry, Rochester; also the Cottage Gardens Nursery, Queens, L. I.

Experiment Stations have been investigating the feeding value of apple pomace. Massachusetts and Vermont report favorably. The Vermont station has preserved it in the silo in the same way that corn is siloed and has fed it at the rate of 35 pounds a day to milch cows, without any ill effects. Neither the quality of the milk or the butter were injured and it was found to compare very favorably in digestibility with corn silage. In view of these results it appears that no farmer who has a silo and who lives conveniently near a cider mill, where the material can be had for the hauling should fail to make use of it. Nurserymen who keep stock may also find it desirable to profit by these experiments.

NEW ZEALAND.

We have recently received from John D. Ritchie, Secretary of the New Zealand Department of Agriculture, a pamphlet containing the report of the Conference of New Zealand Fruit Growers and Horticulturists, recently held at Dunedin. In looking over this report, we are impressed with the fact that though New Zealand is a far distant country, yet the problems that the fruit grower has to deal with there, are in a large measure, the same as those we contend with in this country. The report is an interesting one.

From the same office comes also the report of the Division of Pomology and Horticulture for 1902-'03. Both of these show that New Zealand is thoroughly awake to the opportunities afforded by soil and climate and that substantial progress is being made along horticultural lines.

New Damask Rose—Mrs. Orpen.

Gardner's Magazine, August 20, illustrates and describes this new rose which was awarded a gold medal by the National Rose Society.

It has a robust habit, forming large shapely bushes and has stout, handsome leaves and blooms with remarkable profusion. The fine broad petals are stout in texture and the color an exceedingly beautiful shade of rose pink, making it admirably adapted for table decoration.

STATE HORTICULTURAL SOCIETY OFFICERS CONFER.

An interesting meeting of a number of representatives of several of the State Horticultural Societies was held in the Palace of Horticulture at the World's Fair on October 26th. The meeting was called by Mr. C. E. Bassett, Secretary of the Michigan Horticultural Society.

The purpose of the promoters of this new organization is primarily, to systemize the work of state societies, to promote organizations, and discuss business subjects. It is not intended that the society shall take up and deal with technical matters.

The framework of the organization was secured by the election of the following officers: President, John P. Logan of Arkansas; Secretary, C. E. Bassett of Michigan; Treasurer, S. W. Moore of West Virginia; Vice-Presidents, L. A. Goodman of Missouri, M. J. Wragg of Iowa, and J. G. Patterson of New York. The matter of formulating constitution and by-laws and arranging the programme for the next meeting, was left in the hands of an executive committee of which the president, secretary and treasurer are members. It was suggested, and the suggestion met with general approval, that this society should meet with the American Pomological Society next year at its biennial convention.

At first sight, the organization of another horticultural society would seem to be superfluous, but inasmuch as the field of this organization is to be restricted to organization methods and business details rather than cultural, varietal and other questions relating to orchard practice, there is little reason to criticize the movement. It would seem desirable that the society should correlate its meeting time and place with that of some other substantial and well recognized body of horticulturists. This would be a saving of time and expense for its members and it would seem very wise and fitting that the suggestion made above, that this society should meet with the American Pomological Society, be carried out.

CATALOGUES RECEIVED.

Andorra Nurseries, Chestnut Hill, Pa. (Peonies, Iris, Phlox, Chrysanthemum).

Dingee & Conrad Company, West Grove, Pa. ("Our New Guide to Rose Culture").

Glen St. Mary Nurseries, Glen St. Mary, Florida. (Catalogue for 1905).

Louis Leroy, Rue de Paris, A Angers, Bureaux: Rue Béranger, 6 (Maine-et-Loire). Catalogue Général.

T. V. Munson & Son, Denison, Texas. (The Munson Nurseries and Tree Planters' Hand-Book).

Frank B. Read, 226 Washington Street, New York City, N. Y. (What some of the well-known apple shippers say about the Corrugated Apple Barrel Cushion and the Corrugated Apple Barrel Cap).

G. M. Bacon Pecan Co., Dewitt, Mitchell Co., Ga. (The Pecan Tree. How to plant, grow and buy it).

J. Balme & Co., Mexico City, Mexico. (Mexican Orchids and Cacti.)

BEST DESSERT APPLES.

"The Gardeners' Chronicle" has recently conducted a canvass of the question of what are the best six dessert apples for general purposes in England. One hundred two varieties were reported by 196 voters. Of these Cox's Orange Pippin received 162 votes; King of the Pippins, 127 votes; Worcester 100 votes; Ribston Pippin, 93 votes; Blenheim, 70 votes and Irish Peach, 61 votes. This contest is important from many aspects. The factor of quality is often lost sight of, particularly in America where the great commercial interest dominates, and something of this kind is required from time to time to keep before the public these good old sorts, intrinsically valuable as fruits but often have weak points in regard to growth that prevent them from being favorites with nurserymen.

ASSISTANT SECRETARY OF AGRICULTURE.

The agricultural public is to be congratulated on the selection of Willett M. Hays, professor of agriculture in the Minnesota Agricultural College, for the position of assistant to Secretary Wilson. Mr. Hays is a self-made man, a thorough investigator and deeply interested in agricultural advancement. The appointment should give universal satisfaction.

Association Items.

INTERESTING NOTES FROM CHAIRMEN OF COMMITTEES.

TARIFF COMMITTEE.

EDITOR NATIONAL NURSERYMAN.

DEAR SIR: Replying to yours of the 7th inst. I wish to say, that a thorough investigation of the tariff as regards nursery stock leads me to the conclusion that it is useless to attempt to remedy existing evils which are due to the administration of United States customs laws. These laws apply harshly to other lines of imports notably the seed trade, as well as to nursery products. Probably 80 per cent. of the imports in nursery stock are bought four to six months in advance of shipment. Under the law, if the goods are plenty and the price for the remaining 10 per cent. *falls*, the importer must pay the invoice or contract price and cannot benefit by the cheaper price. If on the other hand, stock is scarce at the end of the season and prices *rise*, this increased value for the small quantity unsold sets the figures for the whole year's output. It's a "heads I win, tails you lose" sort of business with the United States Government in the lead.

Rochester, N. Y.

IRVING ROUSE,
Chairman.

TRANSPORTATION.

DEAR SIR: I regret that the members of the Committee on Transportation have nothing new to report at the present time. We are doing everything possible to get matters in good shape, and are expecting to go before the Western Freight Classification Committee again in January; we have also been trying to get affairs in shape to take our case before the Official Committee, but it is hard to tell just what will be accomplished at either place. Do not know just what bearing the new uniform bill of lading bill may have on the results of our work. We are working hard and hope to accomplish something of benefit to the nurserymen before spring business opens up, and as soon as anything definite is done will be glad to report again.

Bridgeport, Ind.

E. ALBERTSON.

FREIGHT CLASSIFICATION.

EDITOR NATIONAL NURSERYMAN.

DEAR SIR: Replying to your esteemed favor of the 7th inst. would say that the Committee of the National Nurserymen's Association appointed to meet and consider eastern freight classification in New York, have not yet had their meeting, but it is now expected that not only the committee, but several of the interested Eastern Nurserymen will meet the Classification Committee in New York during the month of January.

Further than this I know of nothing to report in regard to the matter. We hope to have with us at that time Mr. Albertson, Chairman on Transportation, who has given such untiring and efficient service in the cause.

Morrisville, Pa.

WM. H. MOON.

Season and Trade.

"*Snowed under* with work even if we do live in the south. Hardly time to eat and sleep during the next three months," writes our good friend Taber, of Glen Saint Mary, Fla.

From a growing standpoint, this season has been an excellent one. Even after our severe winter, stock has made a fine growth. Business, although dull early in the season, has picked up and we expect the usual volume for spring.

Geneva, N. Y.

THE R. G. CHASE CO.

We have had a fair growing season although some of our trees did not make up as well as usual. Business is good and we will sell all our stock except some ornamentals.

ABNER HOOPES, OF HOOPES BROS. & THOMAS.

West Chester, Pa.

The season has given us a fair growth on apple and cherry trees but rather poor on pear trees. Seedlings of cherry, pear and apples are in fine condition.

Gresham, Ore.

EASTWOOD NURSERIES.

The season has been decidedly favorable for growing stock. With seven months hot arid sun and proper irrigation and culture, arid-climate rose bushes have developed beyond expectation. We do not reach the trade for fall sales but in our business history the outlook for spring was never better.

Riverside, Cal.

CHASE ROSE COMPANY.

Editor National Nurseryman

About the usual spring plant was made in this section and with a very favorable growing season that we have had. Nursery stock is looking exceptionally well.

All kinds of dormant budded stocks seem to be in good condition for the winter. The outlook is much better than one year ago. The demand for marketable stock is fully up to the average. There is some shortage on cherry and plum and prices are well maintained. Pears a little higher than one year ago. Peaches about equal to the demand.

Salesmen anticipate a better business for the winter than last year when the unusual cold weather prevented regular work. Our shipping season is about over and collections have been very good. We think marketable stock will be well cleaned up for spring trade.

Tippecanoe City, Ohio.

THE FARMERS NURSERY CO.

OPTIMISTIC ON LONG ISLAND.

Editor National Nurseryman

DEAR SIR:—In response to your esteemed favor of October 25th, which I found awaiting my attention upon my return from Europe, I would say that having been absent from the United States for a period of ten weeks, I hardly feel competent to answer your questions fully.

So far as the growing of stock is concerned, the season has been a very favorable one. We have had continuous rains and a moderate temperature. Stock planted last spring has done exceptionally well especially the evergreens and the loss on the same has been decidedly small. The fall season for transplanting has been very favorable and we have succeeded in moving a large quantity of stock in fine condition.

From the business standpoint we feel very hopeful. As you are aware, we began the sale of our nursery stock last spring. Our venture is comparatively a new one and the market which we have is somewhat limited as we are growing an expensive class of stock. Nevertheless, we have been favored with a fair amount of business and we are in hopes of increasing it in the future.

So far as the general nursery business is concerned, I am not in a position to advance a competent opinion. The general impression which I have received throughout Europe is that the nursery trade is dull, and I have received an intimation since returning to America that the trade in general has not been overly brisk. This I think probably due somewhat to the disturbance of business caused by the Presidential election, but now that this is settled, and it has also been determined that the policy which has controlled the government of this country for the past eight years, shall be continued for four years more, I feel quite certain that there is an era of prosperity ahead of us in which the nursery trade will participate to its full share.

Queens, L. I.

C. W. WARD,
THE COTTAGE GARDENS CO.

The Quincey (Boston) Market Cold Storage and Warehouse Company's directors declared the regular semi-annual dividend of three dollars per share, payable November 1st., to stockholders on record Oct. 18th. The company's capital amounts to \$333,300 and the payment of this dividend called for a disbursement of \$9,999. The Quincey Market Real Estate Trust has disbursed \$25,000 in the payment of a semi-annual dividend of two per cent. on stock amounting to \$1,250,000, which was also payable November 1st.

—Cold Storage and Ice Trade Journal.

We offer for Fall 1904 and Spring 1905

A FULL ASSORTMENT OF

Roses and Ornamental Shrubs

ALL FIELD GROWN.

Special inducements to those buying in large quantities

We make the growing of Roses a specialty and can take care of any size order of the leading sorts of H. P.; Tea; Hybrid Tea; Prairies; Mosses, Etc., Privet; Philadelphus; Althaea and Spirea. *Send for Wholesale List.*

The United States Nursery Co.

RICH, COAHOMA COUNTY, MISS.



Best kind, best of its kind for all hand work, is the

Success Knapsack Sprayer

Knapsack and Bucket Sprayer Combined. Brass pump with bronze ball valves, 5 gal. copper tank, mechanical agitator; pump worked with either hand. Arranged for easy carrying and handling.

WE MAKE 20 STYLES SPRAYERS. Hand, Bucket, Knapsack, Barrel, Field, Power. We meet all wants. Send for free catalog.

THE DEMING CO., SALEM, OHIO.
HENION & HUBBELL,
Western Agts., Chicago.

WE OFFER 100,000 JUNE BUD PEACH TREES

Elberta, Bell of Ga., Carman, Greensboro, 2 to 6 in., 6 to 12 in., 12 to 18 in., 18 to 24 in., 1 to 2 ft. Want to exchange for Apple, Cherry and Pear. **PRICES GIVEN ON APPLICATION.**

CHICKAMAUGA NURSERIES, - - Chattanooga, Tenn.

CALIFORNIA PRIVET, Fine one year, 20 to 24 inches.

LOMBARDY POPLARS, 10 to 16 ft., No. 1 stock.

PEACH TREES, Fine Stock, 4 to 5 and 5 to 7 ft.

ALL MY OWN GROWING.

JOSIAH A. ROBERTS.

Malvern, Pa.

SURPLUS STOCK

If you wish to buy **first-class** Trees and Plants and are willing to pay **first-class** prices for them write to-day for my catalogue and price list. I have sold **thousands upon thousands** of Trees and Plants this Fall and Winter but still have a surplus of **strictly first-class** Apple, Pear, Peach, Plum, Mulberry, Pecan Grape Vines, Carolina Poplar, Strawberry, Blackberry Plants. A few hundred Scuppernon Roses and Privet. One block of June Budded Peach in Belle of Georgia, Waddell and Carman untouched. Several thousand extra heavy 2-year Elberta for retail orders. I wish to exchange for 25,000 No. 1 Straight Apple Seedlings—20,000 No. 2 French Pear Stocks, 5,000 No. 1 Mahaleb Cherry Stocks and Ornamental Stock for transplanting this Spring.

ADDRESS **The Cureton Nurseries,** JAMES CURETON
AUSTELL, Ga. Proprietor.

When writing to Advertisers mention The National Nurseryman.

THE RUBY RED RASPBERRY

A new berry of great qualities. The best to grow for profit.

ITS STRONG POINTS

It is a strong grower of large, hardy canes and a good plant maker. It ripens with the earliest and continues picking a long season. Its fruit is large, bright red in color, exceedingly firm and of a good flavor. It stands shipment long distances being shipped daily from this point to Boston, Mass. throughout its whole season.

It has been grown commercially for six years and to-day stands ahead of all others or a berry for the grower to plant for profit.

We offer good strong-rooted plants to the trade at reasonable rates.

C. G. VELIE & SON,

Valley View Fruit Farm,

Marlborough, N. Y.

FOR SALE

A 42 acre Nursery Farm, just outside of the city limits of Cresco, Iowa. Has a total of about 40,000 stock trees of all kinds, and one acre Strawberries and Raspberries. Good buildings of all kinds. Price, \$8,000; 1-2 cash, balance on time at 6 per cent.

Address **J. H. LUERS.** Cresco, Ia.

WANTED

To contract with a first-class nursery who will fill my orders for the year 1905 with strictly first-class stock, true to name and free from disease. I sold ten thousand dollars during 1904 and want to sell twenty thousand in 1905.

E. B. OLIVE,

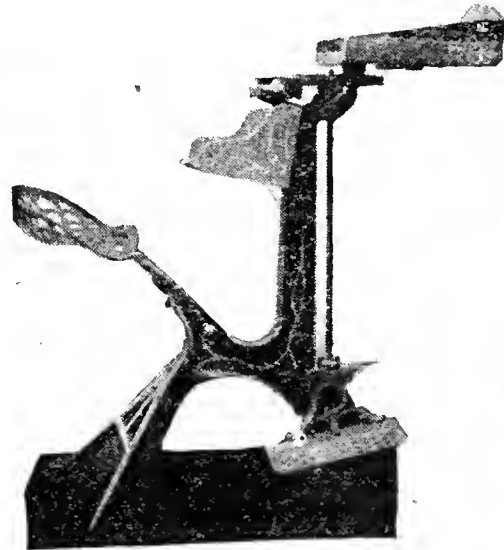
Box 36

Washington, N. C.

The Speer Grafting Machine

Is the Machine that will do the work perfect and saves its cost in short order.

CAN DO YOUR GRAFTING MUCH LATER.



The advantage claimed is **GOOD WORK**; better than can be done by hand, as the bevel cut is perfect and makes a close fit. The cut is made across the grain of the wood which makes countless small grooves across the cut, thus the graft will cling together and stand rough handling, without giving way.

With the knife as done by hand, the cut is made with the grain and leaves a smooth almost polished surface.

SPEED. The bevel and split on both scion and root is made at one stroke, a slight pressure on the treadle does it. You are not bothered with a knife in your hand. You can put up four grafts with less movements and less exertion than by using a knife, as the knives do not glance or give when making a cut. Little floor space required.

For circulars and prices, write the General Agent for United States and Canada.

E. G. MENDENHALL, Kinmundy, Illinois.

Also for Best Tools for Preparing Ground and Cultivating Nursery Stock

When writing to Advertisers mention The National Nurseryman.

Established 1875

Mount Arbor Nurseries

E. S. WELCH, Proprietor

Shenandoah, Iowa

OFFER FOR SEASON 1904-5

GRAFTS SEEDLINGS SCIONS

And a Complete Line of General Nursery Stock

Orders booked and full assortment placed in storage for early spring shipment.

WE ISSUE THREE WHOLESALE PRICE LISTS EACH YEAR

FALL	WINTER	SPRING
(In September)	(In December)	(In February)

We want your name and address if you are not receiving these lists regularly.

OUR NEW CATALOGUE

Quoting Prices for Fruit Tree Stocks :

300	Varieties of Conifers, 1 to 4 years old,
1200	" " Ornamental Trees and Shrubs, 1 to 3 years old,
1600	" " New and Old Ornamental Trees and Shrubs, in all sizes,
250	" " Climbing Plants,
400	" " Conifers, 1 to 4 feet high,
400	" " Perennials,
800	" " New and Old Roses,

has been distributed and will be sent free on application.
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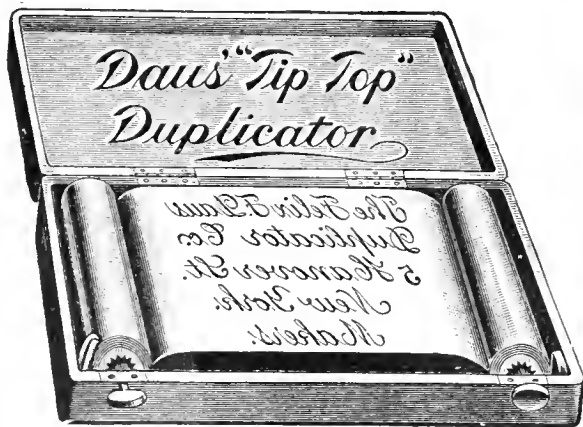
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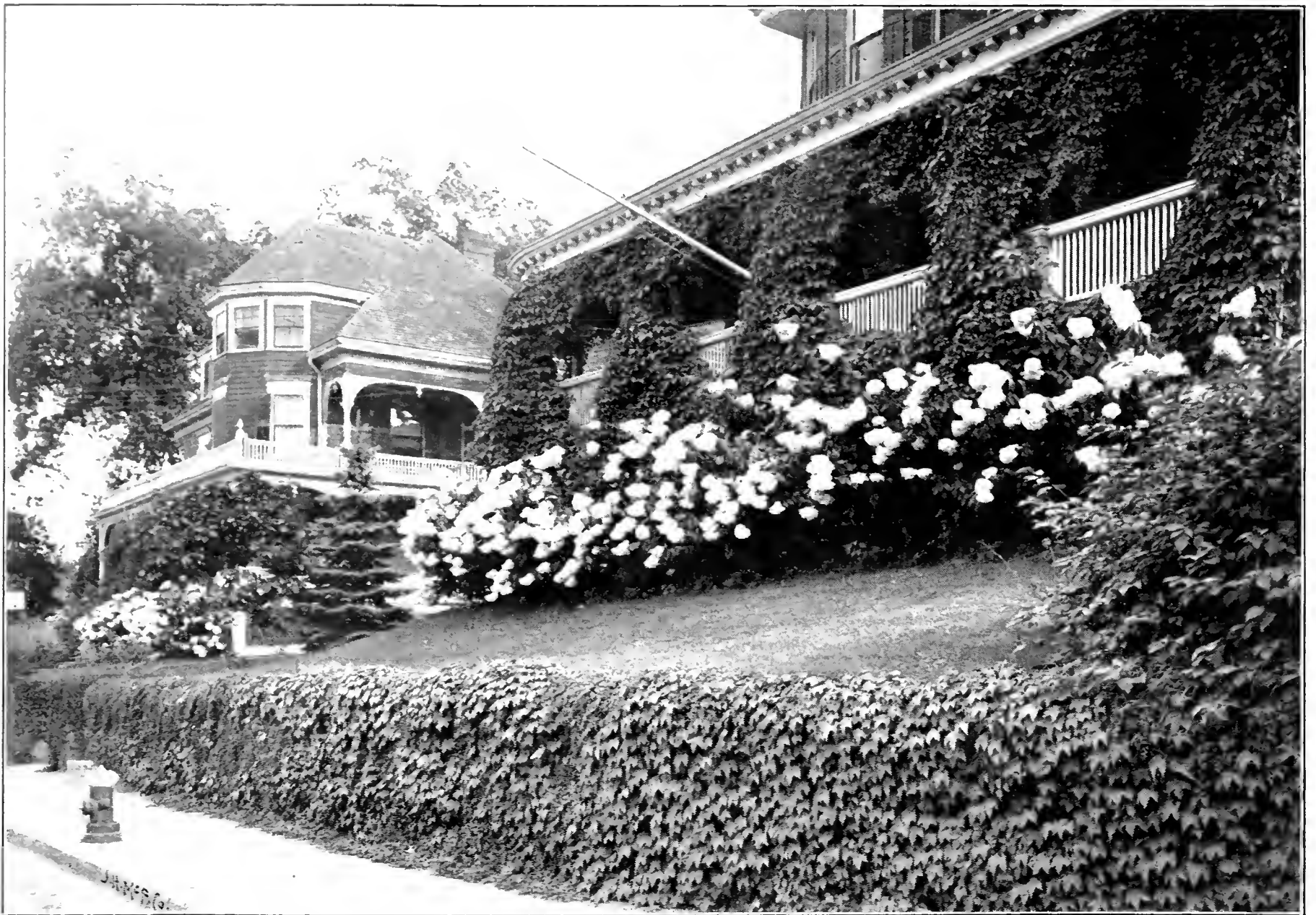
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Planting of *Hydrangea paniculata grandiflora* at the base of a porch. Virginia Creeper on porch, *Ampelopsis Veitchi* on wall, and Colorado Blue Spruce on lawn

A Page from the William H. Moon Company's New Catalogue



THIS illustration was engraved from one of our photographs—we have upwards of 8,000 others. Please notice that we show four good things *in use*. That is the modern way to cause retail sales—to show how trees and plants may be agreeably used. We present no exaggerated and impossible specimens, such as fill the ancient plate-books and insult the intelligence of the best buyers. We do have photographs of real live specimens.

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Mount Pleasant Press

HARRISBURG, PENNSYLVANIA

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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ROCHESTER, N. Y., FEBRUARY, 1905.

No. 2.

INTERESTING SKETCH OF THE NURSERY BUSINESS IN NEBRASKA.

E. F. STEPHENS, CRETE.

In the attempt to give some idea of the inception and rise of the nursery interests in Nebraska, I have not been able to gather as much information regarding the first fifteen years, as I should have been glad to have presented to the readers of the NATIONAL NURSERYMAN.

EARLY HISTORY.

Doubtless ex-Governor R. W. Furnas was one of those who first interested himself in the planting and production of trees; first for his own use and second for others. Governor Furnas came to Nebraska, from Ohio, the spring of 1855. He was impressed with the thought that fruit could be grown in Nebraska. In the spring of 1856, he ordered a small supply of trees and vines from the firm of Ellwanger & Barry, of Rochester, N. Y. Although the consignment was nearly four weeks enroute, it came through in excellent condition, and was planted with care. Every tree and vine lived and nearly all of these trees are yet alive. The cherry trees, however, failed some years ago. When the boxes were opened, one of the pear trees was opening its bloom and gave two pears the first year planted. Encouraged by this experience, Governor Furnas steadily increased his own orchard planting and presently engaged in the production of trees and plants for others. He was at one time a member of the firm of Furnas, Irish, Moore & Co., doing an extensive business. After dissolution of this company, Governor Furnas continued to some extent, in the nursery work. For the growing of shade trees and seedlings, he had unusual facilities. He continued in this work until he was seventy-eight years of age and then sold one of his orchard farms and his nursery interests to the firm of Stonebraker & Clevidence, Brownville, who yet continue the business of supplying seedling forest trees and shade trees, as well as handling their extensive commercial orchard interests.

The Hon. J. Sterling Morton, commenced planting trees at Arbor Lodge, Nebraska City, about 1856 and did much with pen and voice to encourage the planting of both fruit, forest and shade trees in Nebraska. Ultimately his work led to the official establishment and recognition of Arbor Day.

In 1856, the Hon. J. H. Masters commenced his first planting at Nebraska City. He devoted the most of his time to commercial orcharding, exhibiting at an early meeting of the State Horticultural Society, some two hundred varieties of apples.

Major J. W. Pearman was the first to give the major portion of his attention at Nebraska City to nursery work. Orchards set out by him many years ago are yet doing good service, indicating the great care with which he selected, grew and sent out varieties adapted to Nebraska conditions.

MORE RECENT HISTORY.

About 1872, Captain J. E. Hill engaged in the nursery business at Beatrice. At a later period he interested himself in politics; dropped his nursery work, was elected State Treasurer and is now a resident of Salt Lake City.

In the fall of 1871, the writer, a native of Maine, came to Nebraska with the purpose of engaging in commercial orcharding. For the purpose of maintaining expenses while the orchard interests were being developed, the writer engaged in the nursery business and also engaged in commercial contract planting. First contract was made in 1873, planting with excellent success, 750,000 trees for the Burlington railroad company. This led to the planting of commercial contract orchards, street planting and parks. The passing of the Timber Claim Act led to an opening for the contract planting of timber claims. In this work the writer successfully planted seven million trees on four year warranted contracts in Western Nebraska and Eastern Colorado, demonstrating that as long as cultivation was continued, it was entirely practicable to conserve moisture enough to start and maintain the growth of trees. At the present, the writer is engaged, in addition to some general nursery work, in the planting of commercial contract orchards, demonstrating that with suitable selection of varieties, peaches can be grown three hundred miles West of the Missouri river, apples, plums and cherries up to the Wyoming line.

PROGRESS SINCE THE 80's.

In the early 80's the firm of Carpenter & Gage, Fairbury, developed the then largest commercial nursery work in Nebraska, growing immense quantities of forest seedlings for which there was a strong demand for timber claims and shelter belts. They also grew great quantities of fruit trees for the orchards which every new settler at that time thought he must have. The firm ultimately dissolved, J. A. Gage moving to Beatrice, where he is now actively engaged in the production of seedlings and a general line of fruit trees, selling mostly at wholesale. Mr. G. J. Carpenter is now engaged in other lines of work at Grand Junction, Colorado, and the old nursery at Fairbury is now operated by C. M. Hurlburt, Manager, doing an extensive business in the growing of general nursery stock.

In 1882, Mr. J. W. Stevenson, of North Bend, Nebraska, engaged in nursery business, devoting his efforts, especially to the production of small fruit plants for sale and has developed a wide trade, particularly in strawberry plants. He also grows small fruits extensively for market.

In 1883, Mr. George B. Galbraith of Fairbury, engaged in the nursery business. The next season, he entered the firm of Rosenberger & Galbraith and later formed the Mid-Continental Nursery Company. In 1887, Mr. Galbraith married and started in for himself at Jansen, calling his nursery, the

Jansen Nursery. In the spring of 1902 for the sake of better shipping facilities, he erected a large packing house in Fairbury and is now engaged in the growing of fruit trees and seedling forest trees. This gentleman issues 30,000 catalogs giving the larger share of his attention to the retail planting trade.

About 1884, Peter Youngers Jr., Geneva, Neb., engaged in the nursery business, associating with himself, Mr. A. J. Brown. From a modest beginning they have now expanded their business to some four hundred acres and have by far the largest nursery interests in the State. In addition to their nursery, they have interested themselves in commercial orchard planting, having a half interest in a large orchard at Debeck, near Grand Junction, Colorado, and also promising orchard interests near Geneva.

In 1886, Mr. Carl Sonderegger of Bower, Nebraska, engaged in nursery work and developed a handsome trade, particularly among the German people. His growing business, demanding better shipping facilities, he removed to Beatrice, Nebraska, where he is extensively engaged in growing seedling forest trees, particularly the black locust and a general assortment of fruit trees. He gives the major portion of his attention to the retail planter's trade in which he has been quite successful.

C. C., G. A., and H. W. Marshall engaged in the nursery business at Arlington, in 1887. Nearly all of the time two other brothers have been engaged with them in this work. Five brothers made a very strong team and they have developed a large business, selling directly to the planter. Two years ago G. A. Marshall and the younger brother started a nursery at Weeping Water. G. A. Marshall was for five years president of the State Horticultural Society.

Early in the 80's the J. M. Russell Co., planted large peach orchards near Wymore, giving their principal attention to the growing of the peach. As an incidental line of work they grew nursery stock, particularly apple seedlings. In 1897 feeling the need of better shipping facilities, they sold out their interests at Wymore and removed to Lincoln. Here they planted a peach orchard of one hundred forty-five acres from which they have this season sold their third crop, which was very satisfactory. They also continued their nursery work, devoting themselves as before, especially to the production of apple seedlings which they annually grow by the millions. They own the leading peach orchard interests of the state and are doing much to demonstrate that peaches can be profitably grown in commercial quantities. Having a larger crop of peaches than could be marketed with advantage in Nebraska, they with other growers around Lincoln shipped car lots of peaches to Iowa.

In the Southeastern portion of the state, G. N. Titus has large commercial orchard interests and has extensively engaged in growing fruit trees and plants for the very excellent orchard district around him.

At York, the Rev. C. S. Harrison is devoting himself with great enthusiasm to the nursery production and sale of ornamentals, giving particular attention to the development of the pæony, of which he has a great many varieties.

Among the florists, W. J. Hesser, of Plattsmouth, long held the leading business in the production of green house stock. He has now closed his connection with this business and joined his son at California.

Crete, Neb.

E. F. STEPHENS.

Fruit and Plant Notes.

SOME OF THE NEWER PEACHES IN GEORGIA.

J. H. HALE, OF CONNECTICUT AND GEORGIA.

GREENSBORO—A superb white peach with rosy cheek, of fine size and quality; it commands attention and high prices in any market. Think of a peach as large as and beautiful as Oldmixon, ripening in July here in Connecticut, and you have the Greensboro; and with it vigor of tree and extreme hardiness of fruit-bud. July 25 to August 1. These dates are for Connecticut; about seven weeks earlier in Central Georgia.

WADDELL—Next good peach to follow Greensboro. Moderately low-growing, spreading tree of North China type. Fruit buds very hardy; fruit medium size and delicious quality, creamy white, with bright blush all over sunny side. Semi-cling until fully ripe, when it parts freely from the stone. A superb family and market variety, proving a great success in every part of the country. Don't fail to plant a few Waddell. August 5 to 10.

CARMAN—Another of the north China type. Strong, upright tree of great vigor, with extremely hardy buds; fruit large to very large, round, rich creamy white color, covered with deepest carmine on sunny side; often this brilliant color is splashed or streaked with creamy white and pink, so beautifully intermingled as to make Carman one of the most beautiful peaches grown. Flesh very tender and melting; semi-cling until fully ripe, when it is free. August 10 to 15.

HILEY—Belle of Georgia and Elberta, twin sisters, and children of the old Chinese Free, are without doubt the two most popular peaches of their season in America to-day. Hiley, a seedling of Belle, when it becomes generally known and planted, will take rank close up alongside of the two named above, and on account of its earliness is far more profitable than either. Hiley is a variety of great size and beauty, ripening two or three weeks before its parent. Tree a moderate grower, fruit-buds extremely hardy; fruit of large size and much resembles the Belle, only being more highly colored on sunny side. Perfect freestone, a long keeper and superb shipper, ripening a week or more ahead of Mountain Rose. Being of such large size, exquisite color and as fine a shipper as the best of the later varieties, it has for the past three seasons sold for more money than any other peach I grow, and I have taken thousands of trees of other varieties and budded them over to Hiley; I couldn't wait for young trees to grow up to fruiting. Take my word for it—don't miss planting the Hiley; it is a money-maker, sure. August 15 to 20.

EMMA—Originated at Marshallville, Georgia, probably a cross of Elberta and one of the Crawfords. A moderately upright tree, with pale green or yellowish foliage. A shy bearer, round, pale yellow peach of fine quality, but of very uneven size. Where there are several peaches on a branch first one will be of fair size, the next one one-third smaller, and on down to a size not much larger than a walnut. Ripens about two weeks after Elberta and has been extensively planted in Georgia as a good market variety to follow it, but owing to its shy bearing and uneven size, many of the trees are being pulled up and others budded over to more profitable varieties.

SLAPPY—A chance seedling of Elberta, originating at Marshallville, Georgia. A tree of Elberta type and has been extensively exploited in Alabama as an early Elberta. The tree a shy bearer, fruit oblong pointed, yellow with red cheek, develops flesh mostly on one side of pit and but very little on other. A sort of half peach with the skin and a little flesh drawn over the exposed pit side. Matures two weeks ahead of Elberta and when packed best side up has made a fine show in early market and a few have sold at high prices. It is tempting some to plant what is really a very inferior peach.

SYMPHORICARPUS.

We have recently received through the kindness of Thomas B. Meehan & Sons, Dreshertown, Pa., samples of fruiting twigs of two species of *Symphoricarpus*, forwarded by the Jewell Nursery Company of Minnesota, for identification. We find these to be *Symphoricarpus racemosus* and *Symphoricarpus occidentalis*. This little group of shrubs contains three very interesting and useful forms. The first, *Symphoricarpus racemosus* is the common snowberry or waxberry, found so generally in New England and the East. There are few shrubs more widely known than this one. In the autumn, it is loaded with masses of large globular, white berries persisting throughout the winter. The plant is hardy and thrives well on almost any soil from heavy clay to dry gravel. The leaves like the fruit cling late into the winter.

The second form is *Symphoricarpus occidentalis*, the wolfberry of the Western plains. It is probably a geographic variation of the preceding. It differs principally, in that the fruit is smaller and that the berries are not so clear and waxy. The leaves are somewhat larger and persist later in the season.

The third variety is *Symphoricarpus vulgaris*, the Indian currant, or so called coral berry. This also has a wide distribution and is found from New Jersey to the Dakotas, ranging as far South as Georgia and Texas. The Indian currant is particularly desirable as an embankment plant. The branches fall to the ground take root and throw up new stems. On account of this characteristic, it is useful in holding soil on steep terraces and in covering rugged and unattractive places. The dark magenta red of the fruit makes it attractive. The wax berries as a group are being more freely used for decorative purposes than in the past.

ABOUT PEARS IN IOWA.

In reply to January number about Lawrence pear; I planted twelve years ago, in one row, eight Malines, eight Lawrence and eight Boussock pear trees. The Malines made the poorest growth in wood; fruit, sweet, but too small; Lawrence better in wood and fruit; but my choice for wood and fruit would be Boussock. The blight took hold sooner on the top of Boussock. After Boussock pears are sold purchasers ask for more. Lawrence in the East is Winter pear, here it is ripe in September.

Sigourney, Iowa.

HENRY SCHROEDER.

The Garden of recent date, begins an article by the late Dean Hole entitled *Roses—Past, Present and Future*.

The subject is treated in his usual pleasant manner and is of particular interest just at this time owing to the late demise of him who has taken such an interest and done so much for horticulture.—R. S. N.

THE QUINCE.

The quince is a neglected fruit. Here and there sporadic efforts have been made to cultivate it on an extensive scale, but as a rule it has been confined or perhaps I should say relegated to the roadside, the garden boundary or the chicken yard. When properly handled, the quince has proven profitable. It is reasonably long lived. One of the most notable orchards we have known was the Maxwell quince orchard of Geneva, N. Y., which for more than forty years continued to bear fruit and bring in a good revenue. This notable orchard of fifty acres or more has been practically removed within a few years.

There is a fairly steady demand for the fruit of the quince. In later years, it has been profitable. There is more latitude in handling the quince than with many other fruits. It will not spoil if it is allowed to stand in common storage for a few days during a warm spell. Some growers have made a success in shipping it in small packages but it is probable that the half barrel package is the most desirable although the barrel is the usual and rather accepted package upon the market at the present date.

It is a common impression that a quince is a quince "and that's the end on't." They are looked on very much as currants are regarded, but there is a great difference in the jelly making qualities of different kinds. We had reason to test this not very long since and found that the Fuller quince as a canned variety was the finest of all kinds tried. It also proved excellent for jelly making.

The leading varieties among the newer kinds introduced may be described as follows :

FULLER—This is of medium size, roundish conical, slightly oblique, light yellow skin, thin down, cavity ring protruding with ring depressed, basin medium in depth. Flesh is coarse and corky. Appears intermediate between apple and pear types.

VANDEMAN—This is large size, slightly oblate, $3\frac{3}{4}$ by $3\frac{1}{4}$ inches apple-shaped, clear yellow ground slightly woolly. The basin is deep, narrow and roughly ridged; the flesh is rather woody. It is one of the largest and handsomest of the apple type and is fairly early.

JOHNSON—This is large, pear-shaped, 3 by $3\frac{1}{2}$ inches, smooth, ribs obscure, basin broad and deep, skin smoothish, dotted finely with small specks, down thin, color greenish yellow. Later than Fuller or VanDeman.

Of these the Fuller appears to be the most promising. It is more regular in shape and as already stated, better quality than the others. VanDeman is a large, handsome quince of the apple type but is lacking in quality or perhaps it would be better to say is over-supplied with a fibrous character which lowers the character of the quince.

J. C.

G. J. GOULD LOSES SUIT.

The jury in the suit of ex-Park Commissioner Frederick W. Kelsey, a well known resident of Orange, N. J., against George J. Gould, gave a verdict for \$787 and costs in favor of the plaintiff. Mr. Kelsey sued for \$934.25, for plants alleged to have been ordered for Georgian Court, Mr. Gould's summer home at Lakewood, N. J. It was declared that Mr. Gould ordered \$200 worth of umbrella plants and five carloads of rhododendrons, but paid only \$104.25 for the umbrella plants. The rhododendrons remained in a ear on a siding at Georgian Court and were finally sold for a small sum.

William A. Hamilton, who has charge of Mr. Gould's country home, testified that the plants in dispute had not been ordered by Mr. Gould, but the plaintiff produced letters and telegrams to show that the contrary was true. Mr. Gould did not appear in court.

What's Going On.

CONTRIBUTED BY SPECIAL CORRESPONDENTS.]]

FROM OUR MINNESOTA CORRESPONDENT.—FUTURE OF THE APPLE IN THE NORTH CENTRAL STATES.

Recent addresses at the Annual Meeting of the Minnesota State Horticultural Society evidenced a prevalent feeling that the prospects of the apple as a practical commercial fruit for this and adjoining states, was never brighter than to-day; and this in the face of one of the severest winters on record (1903-4.) After forty years of experience we have at last established a group of hardy varieties. Now our horticultural enthusiasts are working on the late keeping proposition. The Minnesota Horticultural Society offers a standing prize of \$1,000.00 for a variety combining hardiness, quality and keeping ability. Eastern and Southern Nurserymen would be surprised at the great number of seedlings and crosses this is bringing out. The various exhibits of the past season showed a steady improvement over preceding years in the qualities sought for and at the present rate the "great keeper" must soon appear. Already a number of entirely new sorts are being propagated in quantity and several of these are undoubtedly destined to become standards in this section at least.

Lake City, Minnesota. The Jewell Nursery Company

NOTES FROM OUR MICHIGAN CORRESPONDENT.

The Annual Meeting of the Central Michigan Nursery was held at the offices of the company on the 11th inst. C. A. Krill, Manager, reported that he was unable to present a statement to the stock holders and the meeting was adjourned until July. No election of officers took place. F. J. Phelps, President of the Kalamazoo National Bank, resigned as director and L. P. Thurston, an employee, was elected in his place.

Van Buckhove & Brother are planning to greatly enlarge their Greenhouse plant to the extent of 75,000 feet of glass. They are pioneers in the business and have been very successful.

W. C. Cook, formerly Superintendent of the Central Michigan Nursery's greenhouse plant, and later in charge of their store, has resigned his position and will engage in business on his own account.

James N. Stearns the well known and acknowledged orchard authority, reports that the peach buds have suffered no injury up to this time and the prospects are favorable for a good crop.

Walter A. Allen, formerly engaged in the Nursery business and later in the employ of L. G. Bragg, has resigned. He will engage in some other line of business.

Kalamazoo, Michigan.

CHAS. A. MAXSON.

SULPHUR WASHES.

The experiments of the Geneva Experiment Station (N. Y.) point very strongly to the conclusion that the sulphur washes are destined to fill a very important place in the spraying program of the fruit grower and tree grower. Send to the station for a copy of the Bulletin on this subject.

A PROBLEM IN STORAGE CELLAR CONSTRUCTION.

We are somewhat puzzled at the results of a storage house which we have just completed, and would like to know if any of the readers of the NATIONAL NURSERYMAN can explain the difficulty.

We had a large stone barn that we were not using, and decided that it would make an ideal storage house. We constructed a second floor twelve feet from the ground, using ten inch joist for the purpose. Between this floor and the apex of the roof there is a space of probably twelve feet at its highest point, slanting down on either side to the side walls to a height of about four feet from the new floor. We covered the under side of these joists with one-half inch white pine box boards, fitting same closely together, over this heavy building paper, then another covering of the box boards,—this gave us an air space of about ten inches. The side walls of the barn are two feet thick, constructed of solid stone. Inside of this we made an air space, covering with double boards and building paper the same as the ceiling. We did not put any ventilator in it, for the reason, we concluded, that as we stored our stock in sand, it would not be necessary, or if we found it necessary we could do it later.

We took it for granted that we had a thoroughly frost proof house, but much to our surprise, we find that such is not the case, and that the temperature will drop to about thirty degrees when we have say ten or twelve above zero outside.

The north west side of the building has a cold sweep of the wind. It is not protected by any other building or growth of any kind.

As a matter of fact, as our stock is well protected inside, we are just as well satisfied that the conditions should be as they are, as it will keep our stock more dormant than if it were any warmer inside, but supposing we had constructed a thoroughly frost proof house, we are at a loss to understand wherein we have failed.

We should be very glad to have suggestions from some of the experienced nurserymen in regard to this matter.

Cellar Storage.

OPINION OF A NEBRASKAN.

Our notion is that failure is due to the excellent conductive character of your stone wall. Stone is a good conductor of cold; and the wall being solid, there is nothing to prevent the outside temperature being quite rapidly transmitted to the interior, notwithstanding your single air space on the inside.

Two air spaces in the covering would be much better than one. Your ceiling need not be any thicker, but that twelve-inch air space could be divided and would then give you a much more effective cold break. It is simply a matter of insulation. A wooden wall a foot thick with three air spaces thoroughly insulated should give you more protection from frost than your solid stone construction with one air space. You will find that your stone wall will respond very promptly to changes of temperature. It is true it will not warm up as rapidly as a wooden wall, but it will cool down much more quickly.

Westerner.

A NEW YORK OPINION.

The question is rather a hard one to answer from a statement of facts and without an inspection of the premises, but it would seem to us on looking the matter over, that it is possible that the air space on the side wall is not sufficient to counteract the frost, which probably comes through the stone wall, for in our experience a stone wall is a pretty good conductor of frost; much more active than brick, and again, it is our impression that if ventilation had been provided the conditions would be more favorable, for we think that foul air will be affected more quickly by cold temperature outside than fresh air.

ROCHESTER, N. Y.

Chase Brothers Company.

A MICHIGAN VIEW.

We think it is a matter of more air chambers. It has been our experience that one air chamber will not make a frost-proof building, when it is entirely above ground, but that more chambers will accomplish it.

We have adhered closely to the trenching of stock in sand, up to the past two seasons but being short of room, we concluded to do some rickig and prepared a portion of our largest cellar, by putting in one air chamber about the solid eighteen inch side stone walls, having one air chamber in the ceiling, as the building had been previously constructed.

We have had perfect results from cording stock the same as trenching but we had to resort to artificial heat to hold the temperature up to above freezing. From our recent experience we have modified our views regarding the storage of stock, and now feel that stock can be corded and successfully carried through the winter, using shop waste or excelsior for packing among the roots, as well as it can be by trenching in sand, and by so doing very much less space is required to carry through the same amount of stock.

We have digressed a little from the original question but as a number expressed their views regarding storage stock, in your last issue, we presume you will not take it amiss in our giving you a little of our experience along that line.

Monroe, Michigan.

J. E. ILGENFRITZ SONS COMPANY.

Correspondence.

ROOT-GRAFTED VERSUS BUDDED TREES.

EDITOR NATIONAL NURSERYMAN.

DEAR SIR:—In your December number we notice your answer and explanation to a query of "Root Grafted versus Budded Trees," signed "W. N. C. Montgomery City, Mo." We think it is a great mistake to consider whole root grafts to represent budded trees, as you mention "whole root grafts which correspond to budded stock."

During the past year we have carefully noted that a block of 50,000 two year whole root grafts was no better than a block of about the same number of piece root grafts, planted on similar ground near it, while a block of budded trees growing between the two were better by far in both root and branch. Our observations as a nursery firm had led us to condemn whole root trees as "a graft" used by agents to increase their sales, until about four years ago our attention was called to the merit of the budded apple over both the whole root and piece-root graft. Since this date we have been increasing our plant of budded apple and decreasing the grafts, until this year we grew over 200,000 budded apple trees. Again we note in your article that you say "the scion practically overrules the root in regard to form." This does not hold true in a budded tree, as the seedling has grown one year and in this time has formed its root system before the bud is placed. Again you say, "the union between the bud placed beneath the bark of the stock and that of the scion spliced to the stock is essentially the same," We find this difference in the budded tree; the bud is set while the sap is flowing freely and becomes a part of the individual tree, so that a year later or any time after that by cutting or tearing the union apart, no sign of the union can be found. In short, the wood is clear, sound and healthy and the union complete, while in a grafted tree the splice never heals. New growth simply grows around it and leaves the original cuts of the knife, which in one year or any time afterwards you will find perfectly dead, and if at any time a bore or other insect should work their way into this place, the tree will begin to decay at this point. The dead spot in the center of the grafted tree is ever present waiting for air or water to complete the destruction.

Now as to the tap root theory, this we think is a mistake and has very little to do with the merits of a tree. In handling thousands of both grafted and budded trees we see little difference in this regard. We believe that the great gain of the budded tree is in the fact that the seedling part under the ground is a natural root, and grows natural, throwing out a lower system of roots with feeders, while in addition to this it throws out a second upper system of brace or anchor roots which start out from the tree about even with the top of the ground and act as anchors to the tree.

NOTE:—In our experience there is a great difference in the rooting habits of different varieties. Some root freely from the scion, while others do not. But if the scion is long and is planted deep, there are very few kind that will not emit roots from it.

Both bud and scion unite in the same way—by cells arising from the cambium. If a splint of wood is left in the bud the same thing occurs as when a scion is used—union takes place only around the edges.

Ed.

EXAMPLES OF BUD VARIATION.

I will give my experience as to the variation during the past forty years of three well known fruits. These are the Winesap apple, the Scuppernong grape vine and the Wilsons Albany strawberry. Forty years ago the Winesap apples grown in this neighborhood were comparatively uniform in size and color. Since then a great many trees of this variety have been brought in and planted from widely separated nurseries in different parts of the United States. The result has been a wide variation in the size and color of the fruit. Probably this variation has extended to the flavor and also to the shape of the apple, but of this I am not sure. I am only stating what I know to be positively true.

Then as to the Scuppernong grape. A very few, if any, Scuppernong grape vines have ever been brought into this neighborhood. It is fairly certain that nearly, if not all, of the many vines now fruiting here originated from a few old vines growing in the neighborhood time out of mind, many of them certainly a century old. Still there is a variation in the size, quality and time of ripening of the fruit of different vines which is most striking. Some bear fruit fully twice as large as others and that when growing side by side. Some have thick hulls and some thin. Some ripen at the beginning of September and some not until the last of October. Now it is barely possible that the most dissimilar vines may be seedlings. But this is extremely improbable, as according to my experience, when the scuppernong seed is planted it reverts to the black grape similar to the muscadine or bullace, the wild parent of the scuppernong. But even admitting that the widest variation is the result of vines grown from seed, there is still such a wide variation in the fruit of vines known to be grown from cuttings that it fully establishes the case in point.

My experience with the Wilson's Albany strawberry is still more conclusive. It amounts to absolute demonstration. Thirty-five years ago the Wilson's Albany was the standard strawberry of this place as indeed it was of most of the country. It was a magnificent berry, large and productive, having but one defect. This defect was a tendency at the very last of the season to run small in size. About twenty years ago this tendency became so marked as to considerably impair the value of the fruit. Being loath to give up this fine old variety I set about to see if a strain of it could be found somewhere free from this growing defect. To this end I obtained plants from several different states and set them side by side with plants propagated here for fifteen or twenty years. As the plants grew off they were closely observed. There could not be a shadow of a doubt as to the identity of each. All were clearly Wilson's Albany. In plant growth and in bloom they were identical. They were also identical in berry at the start. But this identity did not hold. The tendency to dwindle in size was much more marked in some strains than in others. I found that the berries on the home strains of plants kept their size longer than any lot under test. They retained a good size for full ten days before beginning to run small. Some of the lots or strains of plants began to run small at the second or third picking. Some held out longer and then ran down to buck shot size. To repeat this variation in the tendency to run small was so marked that it amounted to the clearest and most unmistakable proof that a marked variation had arisen in the different strains of these strawberry plants.

Now as to the practical bearing of bud variation. If established as true, it shows the necessity of propagating fruit trees and plants of all varieties from the very best parent trees or plants to be obtained. It shows that fruit trees grown from scions obtained from a tree noted for the quantity and excellence of its fruit is superior to one grown from an inferior tree. And of course the better the tree from which the scions are obtained the better the fruit may be expected to be. In this way can the fact of bud variation be made to improve the quality of every known variety of fruit.

O. W. BLACKNALL.

THE NATIONAL NURSERYMAN,

Rochester, N. Y.

We enclose herewith \$1.00 for renewal to THE NATIONAL NURSERYMAN. We enjoy reading this paper very much and get many valuable ideas from the same. Wishing you a very successful year, we remain,

Yours very truly,

Osage, Iowa,

THE GARDNER NURSERY CO.

The National Nurseryman

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NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

We wish to call attention to the letters appearing in the columns of this journal from time to time on the freight question. Mr. Kelsey, of New York, Mr. Rouse, of Rochester, and

THE TRANSPORTATION QUESTION.

others, have expressed themselves very forcibly upon this exceptionally important matter. It appears that the burden falls with greatest weight upon wholesalers and those who ship in less than car lots.

Whether the federal investigation now pending will when finished afford any relief is an open question. It would seem that the most hopeful outlook is along the line of united action. Support the Transportation Committee with suggestions as well as by your moral influence.

Are the members of the association laying their plans to attend this meeting? We are informed by the chairmen of the different committees in charge of the affair that it will be a record breaker in point of interest and we hope attendance. Chairman Kelsey of the program committee promises a juicy as well as meaty bill of fare. If the half which has been told in regard to the glories of the retreat be true we would better save our pennies and join the procession for West Baden.

The first of this series was presented last month. That it has met the approval of many of our readers we have ample evidence. That it is not an ideal effort we willingly admit.

OUR SKETCHES of IMPORTANT NURSERY SECTIONS.

That a larger and more important centre for this our first article might have been selected we cannot deny. But it is a beginning and that's what counts. In tackling a new proposition we like to see a man take hold of the thing which is nearest at hand. While deliberation and carefully systematized plans are excellent, yet we have met men who spend so much of their time in surveying an enterprise that it never got finished. The Newark region with its nurserymen have played an important part in the development of Western New York. There are many regions elsewhere whose history should be recorded. This we hope to do during the year. As soon as the snow leaves the ground so that attractive pictures can be obtained we shall be ready to resume the series. In the mean time we shall be glad to hear from those who are interested.

The origin of Banks' Red Gravenstein is a well known case in point. This appears, however, as a sport on a tree of the ordinary variety. Buds were taken from the varying branches

PROPAGATE FAVORABLE VARIATIONS OF STANDARD FRUITS.

and reproduced a highly colored form, which in some respects, is an improvement over the original. Not long ago, the NURSERYMAN office received a box of apples which on opening were pronounced Northern Spies, though they differed in some minor respects. On cutting, examining and testing the flesh, it was found that it was not Northern Spy and further investigation brought to light the fact that this variety appeared as a chance seedling in a pasture adjoining an apple growing section. The variety struck us as one of the most desirable variations of the "Spy" that we had seen. In flavor it was greatly superior, while in form and appearance it was fully equal to the old and well known variety. Here was a case of seedling variation,

suggesting that we may sometimes secure forms from the seed that are so similar to the parent as to be almost indistinguishable.

We are glad to note that there is a movement on the part of certain nurserymen, to keep account of these improvements on standard varieties. Let us bear in mind, that when one of these improvements is multiplied by grafting and budding, that we are not breeding a variety but merely reproducing it in quantity for a waiting and let us hope, an appreciative public.

We would ask nurserymen who have observed such variations and have noted their history or know of any that should be investigated, to advise Mr. C. A. Rogers of the Department of Horticulture, Cornell University, Ithaca, N. Y. Mr. Rogers is making a special study of the subject.

There is no reason at the present time, why a student who wishes to secure a training in forestry so that he may become a forest engineer, superintendent of a forest, or manager of a wood

THE TEACHING OF FORESTRY.

lot, should not succeed in obtaining it. Instruction is offered by the Yale Forest School, New Haven, Conn.; the Biltmore Forest School, Asheville, N. C.; the Massachusetts Agricultural College, University of Michigan; the Iowa State Agricultural College; the University of Maine, the Minnesota Agricultural College and others.

One of the most successful of the forestry schools was that established by the State of New York at Cornell University and it is to be greatly regretted that this was discontinued for lack of funds a short time since. May it be re-established before long.

The November issue of the "Forestry and Irrigation Journal" draws attention to this and many other matters of importance. Prominent among which is the Forestry Congress which met in Washington, January 2nd to 6th, 1905. Among the subjects considered by this congress were the following: Relation of the Public Forest Lands to Irrigation; Relation of the Public Forest Lands to Grazing; The Lumber Industry and the Forest; Importance of the Public Forest Lands to Mining; Forestry in Relation to Railroad Supplies; National Forest Policy; and State Forest Policy.

From the statements made elsewhere the reader might readily draw the conclusion that the introduction of the Russian fruits had been an entirely futile enterprise. To reason

PRESENT STATUS OF RUSSIAN FRUITS.

thus would be unfair to those interested in the importations, and unjust to the fruits themselves. It is true that the later introductions have not proved as rich in valuable varieties as the earlier. For it is to be remembered that Duchess, Astrachan and Alexander were imported by the Massachusetts Horticultural Society as early as 1837 and were fruited at the test garden at Salem, about 1840. Yellow Transparent was imported by the United States Department of Agriculture in 1870, and was popularized by the late Dr. Hoskins of Vermont, a fruit grower who shared with Professor Budd high hopes in regard to the usefulness of this class of fruits. Aside from these varieties, Minnesota, the Dakotas, Montana, Manitoba and the Canadian North West have discovered varieties which will grow and bear fruit in trying situations where fruit of the apple class were not grown before. This is progress! This represents a substantial advance. But it is not the most important phase attending the growing of this race of fruits in this country. The Russians have

vigor and productiveness but lack quality and are mostly early maturing kinds. Our American apples lack vigor of tree while many of them possess fine flavor and are good keepers. Undoubtedly the greatest benefit which this country will derive from the introduction of the Russian fruits will come from the systematic and designed, or haphazard and accidental crossing of these two races. Considerable progress in this direction has already been effected; but apple breeding is slow work and undoubtedly the next generation will see the results of the blending the races much more clearly than we do at the present time.

The work is going on quietly here and there, but unceasingly nevertheless. In such varieties as McMahon White and other Wisconsin and many Minnesota seedling apples we are enabled to recognize the good work; and so it will continue. In passing it is worth while to mention that the introduction of Russian fruits brought into the public eye a number of Oriental or Asiatic shrubs or trees having important qualities of hardiness and beauty. Among these should be mentioned *Berberis Thunbergii*, *Acer ginnala*, hardy *Loniceras*, *Spiraeas* and *Privets*. These have all been important additions to our list of lawn ornamentals.

With the death of Professor Joseph L. Budd, of Iowa, at San Antonio, Texas, on December 20th, a remarkable horticultural career ended and an important pomological controversy may be said to have come to a close. For many years

Professor Budd was the American champion of the Russian fruits, more particularly the apple. He believed that the future pomological standing of the Middle West depended in large measure upon the introduction and cultivation of the apples, plums and pears of East Europe.

He labored unceasingly with this ideal in mind.

He visited Russia and opened correspondence with the leading students of pomology in the old country; exchanged scions and seeds and imported large collections of orchard fruits. These fruits were received by the Department of Horticulture of the Iowa Agricultural College, of which Professor Budd was head, propagated and sold at low figures to fruit growers, professional or amateur, throughout the country. Right here occurred the serious mistake. They should have been tested first at home, and if found worthy of further trial distributed judiciously to careful experimenters in different parts of the country.

The promoters' belief in the fitness of Russian fruits for the Mississippi Valley and the Northwest was based upon apparent similarity of climatic conditions. There is undoubtedly much in common in this respect between the two regions. But there are also many things unlike. There is more of winter and less of summer in many parts of Russia from which the apples came. Iowa and the Northwest wanted *winter* apples. Now, when an apple is brought Southward from the place of its nativity its keeping season is shortened by the superior ripening influences of the warmer season. This is what happened all the truly Russian apples. If winter there, they became fall in Iowa, if fall they were likely to prove summer. Hardy trees were wanted in the West. These were secured. The hardiest race of apple trees in the world are those of Russia and they have attained this characteristic by

AN IMPORTANT CONTROVERSY CLOSED.

the process of slow and gradual adaptation through seedling production. So hardiness was secured.

But the Middle West wanted an apple that did not blight; and here again the Russian failed. The rich drift and loose soils alike promote rapid growth favorable to the development of the microbe of blight and the Russians succumbed even more rapidly than their less vigorous relatives of New England and the East. Here again was disappointment. But Professor Budd's faith never wavered. He had studied. He had visited Russia, seen the trees and fruit, but failed to realize that different environments will bring forth widely divergent results.

Again the quality of the fruit has been a sore disappointment to many who at first were pro-Russian in sympathy. As a rule this group of fruits excel in high color and handsome appearance but are low in quality.

Inability on the part of Mr. Budd to see and admit the weak points of these fruits coupled with his unceasing advocacy aroused antagonism and active opposition. Two parties grew up in the West. One pro-Russian, the other anti-Russian and many and bitter controversial passages occurred. Most regrettable personal enmities arose greatly retarding true pomological progress. Of recent years the discussion has weakened. Advancing years and withdrawal from the chair of horticulture subtracted something from the vigor and effectiveness of the champion's pen. But to the last he was optimistic and confident of the ultimate triumph of the cause which he labored for.

Whatever a man's failings are we should remember his virtues. Joseph L. Budd was first a school teacher, then a nurseryman, and finally the incumbent of one of the first chairs of horticulture in the United States. In this position his optimism and never failing enthusiasm were always dominant. As a teacher these qualities were preeminent. In this way he inspired many young men and was the means of adding them to the ranks of the horticultural teachers and investigators of the country. Peace to his ashes and may the years coming swiftly upon us, not fail to render due recognition for the good received from the life work of this man, who labored so faithfully in the interest of prairie horticulture.

CALIFORNIA WINE MAKING.

In 1894 the production was 16,000,000 gallons and the price of grapes \$7-\$9 per ton.

In 1902 the production was 40,000,000 gallons (largest to date.)

In 1894 the price for cellar lots was 7-9 cents a gallon.

In 1903 the price for cellar lots was 19-20 cents a gallon.

In 1902 the price of grapes was \$24-\$30 a ton (highest in late years.)

CIVIC IMPROVEMENT.

The action of the City of Los Angeles, California, in endeavoring to convert what is now a tract of 3,000 acres of brush land into a commercial forest, illustrates the trend of public opinion and policy as regards forestry as an investment for labor and capital. The work of exploiting this city forest is to be directed by the Bureau of Forestry, Washington, D. C. The land to be devoted to the prospect is now practically waste land. So that it will be making an asset for the city out of a tract of land which is now sterile and unproductive.

North Bohemia is to hold an industrial exposition in 1906. It will occur in the city of Reichenberg and will continue from May until October. All branches of Bohemian industry, manufacturing, agriculture, forestry and art will be represented in comprehensive exhibits such as have never before been assembled. Foreign exhibits will be given a place if space is available.

INTERESTING IMPRESSIONS OF EUROPEAN NURSERIES.

BY A LONG ISLAND NURSERYMAN.

EDITOR NATIONAL NURSERYMAN:

Replying to your kind request regarding my trip to Europe, I will say that I was very much interested in visiting the Continental horticulturists, especially those of France, Germany and Holland. I was interested solely in that part of horticulture pertaining to ornamental trees and shrubs and hardy fruits.

I found the nurseries of Europe generally, much better conducted than the average nursery of America. This perhaps may be owing to the cheapness and abundance of skilled labor, and in this I think that the European nurseryman has a decided advantage over the American, who frequently has to trust his work to the tender mercies of beginners in the business who have but little knowledge of plant culture.

I was particularly impressed with the nurseries near Paris, and it seems to me as if the French horticulturists lead the balance of the world, particularly in the growing of trained trees and shrubs of all sorts. In several of the nurseries which I visited near Paris, I found enormous stocks of fruit trees trained in various novel, old, as well as practical shapes. For instance: fruit trees of nearly all kinds were trained in the form called by the French "Espallier," which somewhat resembles the manner of training grape vines and enables the trees to be grown against walls, the same as vines, thus occupying limited areas of air space and enabling the culturist to produce fruits where the greatest economy of space is necessary. Fortunately for me, while in France, the nectarines, peaches, plums, pears and apples were bearing one of the finest crops of fruit that had been known for a number of years and I saw the French orchards in the pink of condition. This was true of small fruits and grapes and both my son and myself revelled in the most delicious varieties of fruit known to the modern fruit culturist.

I also found the French horticulturist even as good as his fruits and was royally entertained wherever I visited, and shown the greatest consideration by all connected with the various establishments. And it gives me the greatest pleasure to further say in general that I have never been more courteously received, or more hospitably entertained during my travelling experience than by the horticulturists of France, Germany and Holland.

In Germany the methods of culture resembled more nearly that of America. There was less attention given to the training of fruit trees into the odd shapes produced in France; but the German nurserymen give their stock exceptionally good culture. Their climatic conditions perhaps were not as favorable as those of France, but it seemed to me as if they were making the most of their opportunities.

In Holland—especially in the nursery districts in the neighborhood of Boskoop and Haarlem—I was particularly impressed with the enormous quantity of material which was produced upon the small space of land available to the average Holland nurseryman. I believe that intensive culture as practiced here reaches its climax and I cannot see how it would be possible to grow anything more upon the ground than is grown in the average Holland nursery. Strawberries,

salads and other vegetables of all kinds were grown between the shrubs and underneath the shade of the ornamental deciduous trees. In many parts of Holland the nurseries are located upon a black mucky soil which has been reclaimed from the bottom of the sea. This is laid off in little squares of from one acre to five or six, each square being surrounded by a deep ditch, the top of the soil lying, as a rule, not more than two to four feet above the level of the water, so that you can appreciate in such a location, plants never suffer for the lack of moisture. There was but one criticism from my standpoint against the Holland nursery and this was that stock, as a rule, was grown too close together and not given sufficient air space. This results in a very close heading in of the plants in order to keep them down and from interfering with each other. This sharp cutting and the lack of circulation of air and sunlight around the base of the plants, produces, in many evergreens, a thinness at the bottom of the plant which deteriorates in its value, and this could be obviated by giving the stock a little more room.

However, there is some excuse for the Holland nurseryman's crowding his land in the manner which he does, and that is the high rental cost of the land used for nursery purposes. I found that the average rental land in the most favored nursery districts of Holland, exceeded, in some instances, the purchase price of land within rifle shot of the Cottage Gardens.

Taken as a whole my trip was decidedly instructive and I believe that I absorbed considerable valuable information. I certainly enjoyed it very much indeed and returned to America not only much improved in spirits and health, but with a much livelier appreciation of the ability of our brethren on the other side of the pond.

C. W. WARD.

Cottage Gardens Nursery Co., Queens, L. I.

PENNSYLVANIA NURSERYMEN IN SESSION.

The first annual meeting of the Pennsylvania Nurserymen's Association was held in the parlors of the Commonwealth Hotel, Harrisburg, Pa., on January 16th and 17th. This organization was effected last year. The nurserymen of Pennsylvania have long felt the want of a State organization and consequently, when the call was made for a meeting, the nurserymen very quickly responded. There are some thirty-five members of the Association, twenty-seven of whom were in attendance at the meeting.

This being strictly a trade organization, it was decided to hold the session behind closed doors and this was carried out. At the meeting on Monday evening however, the Secretary of Agriculture, Hon. N. B. Critchfield, and the Economic Zoologist, Prof. H. A. Surface, and State Inspector of Nurseries, Mr. E. B. Engle, were invited to attend the meeting. Informal addresses were made by them as to the best legislation to propose concerning San Jose Scale, fumigation and nursery inspections, this being one of the important questions that was up for discussion at the Executive sessions of the meeting.

The Association through its legislative committee prepared a new bill to be entered in the legislature covering the inspection of nursery stock. This bill was accepted and endorsed by the Department of Agriculture and will be presented at this meeting of the Legislature and every effort made to have same passed. The bill covered not only the inspection of

nursery stock, but also similar inspection and treatment of any trees or shrubs throughout the State that may be known to be infested with San Jose Scale. It has the advantages of not only looking after the nurseries but also of cleaning up any old orchards or trees that may be infested with scale.

The members of the Association were very enthusiastic over the success of the organization. The officers of last year were re-elected. They are as follows: Wm. H. Moon, president; Thomas B. Meehan, vice-president; Earl Peters, secretary; and Thomas Rakestraw, treasurer.

COLLAR ROT ON THE KING.

It is a very regrettable fact that a healthy King apple tree over twenty years of age is difficult to find anywhere in the country. The trouble usually lies in canker at the base, near the surface of the ground, or in the forks or branches. This collar rot at the base is a corroding or eating away of the bark. It appears in a small patch, which gradually increases in size till it encircles the tree and causes its death. The trouble is well known to orchardists over the country, and is called variously "canker," "King disease," "collar rot," etc. Other varieties affected by the same trouble are Twenty Ounce, Hubbardston and Greening, the latter to a slight extent. This fungous disease appears to be especially prevalent in New York, but is found in some sections in New England where the King is grown.

Prevention.—I have seen cases where trees have been saved by bridge grafting, but this is an uncertain remedy, because the disease may take a fresh grip and kill off the "bridge" as well as the old original tissue. The fundamental remedy seems to be the placing of the King on another stock not susceptible to the disease. Wherever I have seen King on Spy or Russet, there has been no trouble from this enemy. It is probable that Tallman and Haas will be equally satisfactory. The thousands of top grafted Kings scattered here and there throughout the country and in good condition at this time—some on old seedling stocks—give evidence of the desirability of this method of growing this apple. The King on its own stock is a variety whose days are short and full of trouble. It seems to me that here is a very desirable field for enterprising nurserymen—the King on healthy, vigorous stocks. The value of the King as an orchard variety has been emphasized the last season by the fact that when buyers sniffed at Baldwin and Russet they were willing to make a bid on Kings.

J. C.

We are very much pleased at the marked improvement in THE NATIONAL NURSERYMAN. Its horizon is broadening and the field is of greater interest than heretofore. The big and little are given a chance, and their experiences are read with general interest. Accept our congratulations for the splendid work you are doing.

Lake City, Minn.

THE JEWELL NURSERY CO.

SIGHTLESS AND SPEECHLESS.

William A. Pinkerton tells of an old-time confidence man who used to do business in Chicago. He was anxious to work unmolested around a depot where a special officer was engaged to protect the unwary. The crook one day walked up behind the officer whom he knew pretty well and suddenly reached around and put his hands over the officer's eyes.

"Can you see anything now?" asked the "con" man.

"Not a thing," said the other, as he raised his hands. The crook removed his hands and a \$20 gold piece fell into each of the officer's hands.

The crook walked away laughing, but the officer followed. "Say," he remarked, "if you put one of those into my mouth I could not even speak."—*New York Times*.

THE HARDY CATALPA AS A FARM CROP.

(From Bulletin 149, Ohio Experiment Station.)

One of the most suggestive bulletins of the year was published by the Ohio experiment station last spring. This publication is of interest and value to the nurseryman and farmer alike. This bulletin emphasizes first, the fact that it is necessary to distinguish between the useless and the useful forms of the catalpa. Second that the hardy catalpa (*Catalpa speciosa*) brought to public notice years ago largely through the efforts of Dr. John A. Warder, the eminent pomologist, can be grown with profit as a farm crop. We are glad to quote liberally from this bulletin.

The Ohio station says that "At least three mistakes have been made in planting catalpa trees, all of which have worked injuriously against the hardy catalpa, and to some extent against forestry in general. These are (1) too close planting, (2) neglect of thinning, and (3) improper pruning. In nearly all of the earlier plantations the trees were set four feet apart each way and allowed to struggle for existence after two or three years' cultivation.

Comparatively little has been realized from such plantings; the growth has been unsatisfactory; the trunks have been crooked, and the branches, instead of dropping off, have remained to form entering places for fungi.

Doubtless it was the intention of those who made these first plantings to thin the trees at the proper time; at least one of those most prominently engaged in such work had that thought in his mind, as shown by the following: Referring to an article by a correspondent from Kansas, Mr. Robert Douglas, in *Garden and Forest* for January 3, 1894, says:

'I can confirm all that he says about the durability of catalpa-wood and its value for cabinet-work. It is a misfortune, however, that he should have accepted as true the statement which he says was prevalent ten years ago to the effect that 'Catalpa planted four feet apart each way, and cultivated three or four years, would every one make a post in from eight to ten years.' Perhaps such statements did appear in the agricultural press, but surely no one who has observed the growth of trees, either in the forest or in artificial plantations would have believed this possible. * * * It is only on paper that men plant forests which grow in this prosperous way. 'Set out your trees four feet apart,' says the indoor forester, 'then the third year thin out every alternate tree in the first row, and

take out the second row entirely, and you will have trees standing eight feet apart, exactly one-fourth of the number originally planted, all vigorous and happy, and growing into timber at railroad speed.' But if any plantation was ever actually thinned out in this geometrical fashion I am sure it must have been seriously damaged.'

"The cost of growing an acre of catalpa trees must vary according to local conditions; likewise the value of the crop will depend upon the soil and care given, so that an estimate as to the probable profits can be approximate only.

Mr. John P. Brown, editor of *Arbiculture*, estimates the cost of growing an acre up to eight years to be \$75 and by some persons the cost is put at a lower figure. The following estimate is from bulletin 108 of the Kansas Experiment Station:

"Careful estimates based on the Laggy forest give total cost of growing and marketing timber on one acre for ten years as \$51.70; gross value of product in ten years, \$267.15; net profit \$215.45; net profit less six per cent. compound interest on expenditures, \$197.55 per acre; net annual profit for first ten years, \$19.75; owner's estimate of present gross value of product (three years later than above valuation) \$400 per acre; annual income of plantation at present as estimated by owner, \$50 per acre."

* * * * *

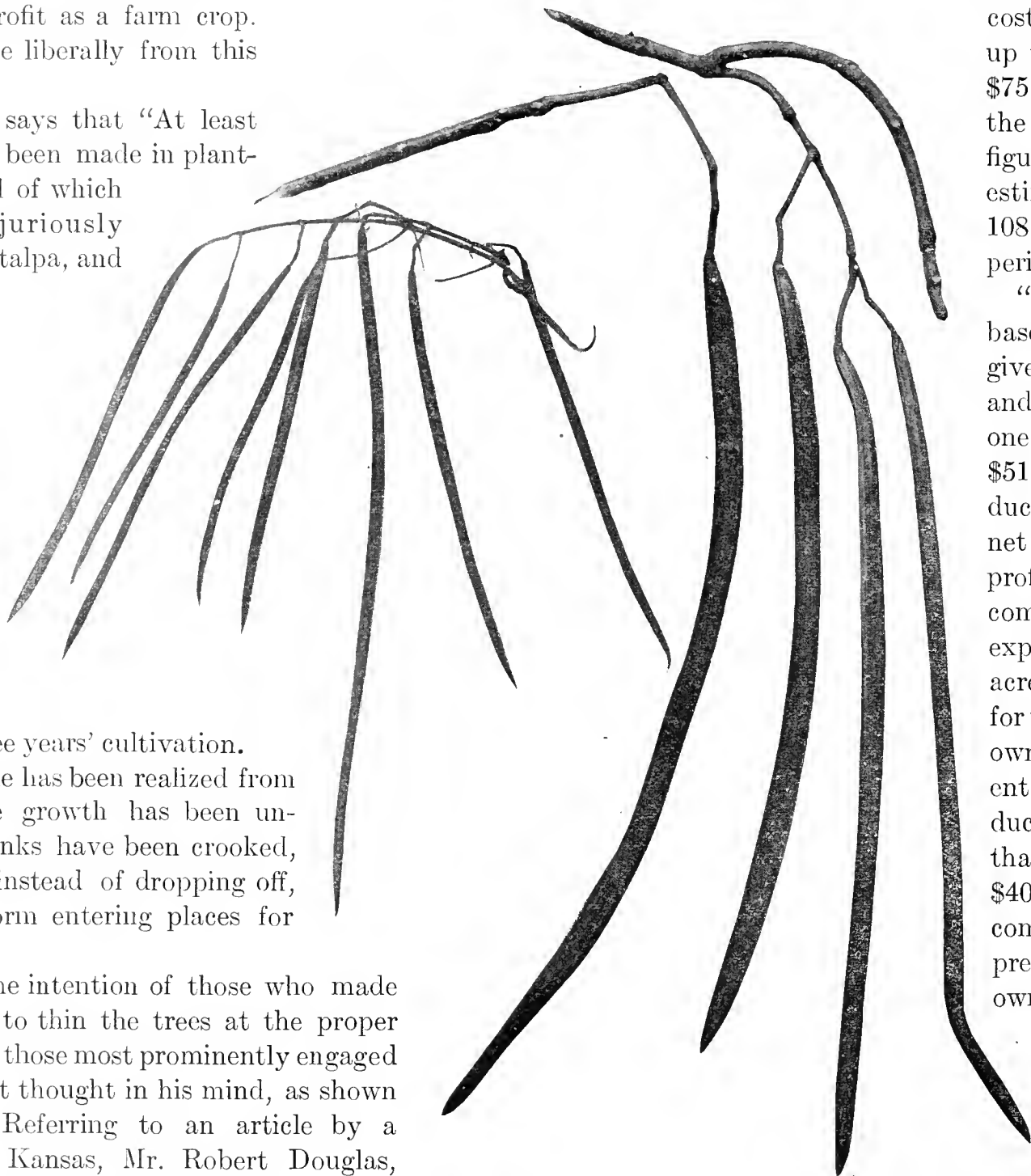
HOW TO DISTINGUISH THE USEFUL VARIETY.

The catalpa is easily grown from seed and in some cases it may be ad-

visable to grow the trees instead of buying them. If one knows how to distinguish the true *speciosa* and can find seed bearing trees of that species, it may be as well to take no risks of getting the wrong kind by buying trees.

There are two very common species of catalpa which are found in nearly every neighborhood, both of which are undesirable. Both of these are more spreading and bushy than the *speciosa*. The filaments, or threads, at the ends of the seeds of these two forms of catalpa are drawn together, while those of the *speciosa* stand out parallel to each other like the hairs in a flat paint brush.

The inferior kind seeds very freely and the seeds are easily



SEED PODS OF CATALPA SPECIOSA ON THE RIGHT, BIGNONOIDES OR HYBRIDS TO THE LEFT.
From *Arbiculture*, Courtesy John P. Brown.

gathered, as they are nearer the ground, but the pods of the *speciosa* are more scattered and higher up.

GROWING FROM SEED.

The seeds may be gathered at any time during the winter, but it is advisable to secure them as soon as the leaves fall in order to prevent loss by the opening of the pods. The seeds should be kept over winter in a dry, cool place. They are to be sown about the first of May, or as soon as the ground is in good condition." "Soil that is rather better than the average should be taken for a seed bed and it needs to be put in good condition by careful plowing and harrowing. The seed is to be sown in drills, made with a hoe or a small hand cultivator with a single tooth. Scatter the seed in the drills about an inch apart, or even closer, and cover not more than half an inch with mellow soil. The rows may be eighteen inches apart for hand cultivation or far enough to work with a horse. Keep the ground free from weeds during the summer. In the fall the trees ought to be from one to two feet in height and a little larger than a lead pencil. They may be transplanted in the fall on sandy soil but on account of heaving out during the winter it is safer to defer transplanting until spring. The seedlings may be allowed to stand in the seed bed during the winter but it is better to take them up in the fall and heel them in, selecting a spot where water will not stand.

If the field which is chosen for the permanent plantation is tillable it should be put in as good condition as for any farm crop and the trees planted during April or May. In well prepared ground planting is a simple matter.

PLANTING.

Thrust a spade the full length of the blade into the ground and work it back and forth, thus making a hole for the tree. If the root is too long for a hole of this depth cut it off so that the tree may stand about as deep in the soil as it stood before. Place the roots of the tree in the hole and thrust the spade in again two or three inches to one side and press the soil firmly against the roots and then fill the hole with the spade or feet. Bring the feet together on either side of the tree and firm the soil well by tramping.

A crop of corn or potatoes may be grown between the trees the first season, and the cultivation which is necessary for the crop will be sufficient for the trees. The second season a crop may be grown between the trees also, but as the trees will shade the ground considerably there is not much to be gained by cropping, especially when the difficulty of plowing the ground is considered. In most cases a better plan would be to work the ground first with a disk harrow and then continue the remainder of the season with a common harrow." This plan might be modified by sowing crimson clover in August or September, or cow peas or soy beans in June or July. Whatever crop is sown it should be one of the legumes and it need not be turned under.

AFTER CULTIVATION.

The third season cultivation may be impracticable, although in some cases it may be continued the same as in the second. The growth of the trees will determine the matter largely, but in case a start of crimson clover has been secured it would be well to leave it undisturbed.

After the first season cultivation should be shallow so as not

to mutilate the roots of the trees, and should be so managed as to conserve moisture to the greatest possible extent. At the end of the second season many of the trees will be ten feet in height and two inches in diameter at the base. The roots of such trees will meet and pass in the middle of the rows, filling the entire space with a network of rootlets. It is evident that cultivation must be done with care, also that moisture must not be allowed to waste. The condition needs only to be understood in order to realize the necessity of careful work. A catalpa grove cannot be treated in the same manner as a young orchard, as the growth is more rapid and the trees are closer together than fruit trees. In some cases cultivation may be impracticable, such as stony fields, newly cleared lands and steep hillsides.

On stony ground and steep hillsides the ideal method is to dig with a mattock a small space, about two feet square, where each tree is to stand, and then plant as advised in plowed ground. After planting, success is more certain if each tree is mulched with straw, or some material which will keep the ground moist. Seeding with clover, if practicable is advantageous also.

On ground which is newly cleared the same method of planting may be followed and clover seed sown, but the sprouts which start from the stumps of the trees which have been felled will need to be cut at least once during the season and may be thrown about the young trees to serve as a mulch.

It is seldom advisable to plant catalpa trees where either mulching or cultivation cannot be practiced. Some of the trees may grow and make good specimens without care, but the result will not be satisfactory where no attention is given them. All live stock, except chickens, should be kept from the catalpa grove for at least three years, but after that hogs might not injure the trees, although we know of no groves having been used in this manner. In case shade for live stock is the primary object and timber the secondary, the catalpa is as suitable as any tree.

GENERAL CONSIDERATIONS.

Pruning is a matter of the utmost importance in growing catalpa trees. Much has been said regarding the necessity of securing forest conditions, *i. e.*, the shading of the soil by means of a thick growth, in order to prevent the loss of moisture; to discourage the growth of grass and weeds; to kill off side branches and to insure an upright growth of the trees. This plan has been sufficiently tested to show its impracticability. A catalpa grove is as much an artificial product as an apple orchard. Forest conditions in a catalpa plantation can be secured only at the expense of growth. Artificial conditions are more economical, at least at first, but later, natural conditions may be better.

A strawberry plant is often the worst weed in a strawberry bed and all surplus trees in a catalpa grove are weeds, or often worse than weeds. Trees can compete with grass and weeds far more successfully than with other trees, but competition of all kinds should be reduced to a minimum. Cultivation does this for other crops and it serves the same purpose for the catalpa. If one would grow a catalpa grove successfully he must reduce the struggle for existence to the lowest limit by artificial means. Side branches are more economically removed by pruning than by close planting.

IN THE FRONT RANK.

It is the purpose of the editor as well as the function of the NATIONAL NURSERYMAN, to record substantial progress in all lines of nursery endeavor. We take great pleasure in presenting this month an attractive frontispiece representing the energetic and up-to-date establishment of a veritable hustler of the Mississippi Valley.

Shenandoah, Iowa, like Dansville and Rochester, N. Y., is a region which has sprung into prominence in recent years as a tree-growing centre. We hope to reach this and many other sections in succeeding issues of the NURSERYMAN. The description of the Newark section has aroused public inquiry in a remarkable manner. Regions will be written up and are illustrated as rapidly as possible. Write us for further information, but also Mr. Welch for a copy of his wholesale catalogue.

Of nurseries in the great middle West, with one of the most complete and extensive plants in the country, is the Mount Arbor Nurseries, E. S. Welch, proprietor, of Shenandoah, Iowa. During the past year additional improvements have been added in the way of a new brick grading and packing house, and a fine new office building. Engravings of these as well as their other buildings are shown elsewhere in the number of the NATIONAL NURSERYMAN. The semi-annual wholesale price-list of this firm was out February 1st and they will gladly send it to all who are entitled to wholesale trade prices. Shenandoah is a great nursery centre and the Mount Arbor and E. S. Welch deserve a great deal of the credit for building up such a widely known industry.

HALF CENTENNIAL JUBILEE OF WESTERN NEW YORK HORTICULTURAL SOCIETY.

Although bad weather prevailed yet in no way did it seem to affect the attendance at the meeting of this great society on January 25 and 26.

The old veterans were there in force; the middle aged men were on hand and there was a good sprinkling of the young men who are to fill the places of those who are gathered in by father time as the years roll round.

President Barry referred in vigorous terms to the brilliant record of the society; to the noble and self-sacrificing efforts of the pioneers in fruit growing in Western New York; to the need of adding to the membership of the society and disseminating widely the valuable information contained in its report.

The program was full of things interesting, entertaining and instructive. The society starts on the first half of the second half century of its career with a brilliant promise of success and a constantly widening field of endeavor before it. The same officers were re-elected.

VISIT OF BUSINESS MANAGER TO DANSVILLE, N. Y.

Pressure on our columns prevent us from acknowledging except in the briefest way the many courtesies which the business manager of the NATIONAL NURSERYMAN received at the hands of our Dansville friends on the occasion of his recent visit to that important nursery centre. Dansville men are all right. It is on the map notwithstanding the insinuations of some of the banquet speakers. Its nursery citizens are hustlers and they know how to treat a visiting member of the fraternity. We hope ere long to visit Dansville with camera and note book in the interests of those who want to know where good trees are grown.

The E. C. Brown Company of Rochester made a very impressive display of spray pumps at the recent meeting of the Western New York Horticultural Society. The display included hand pumps, compressed air pumps and power pumps in great variety. Mr. Brown reports a heavy and increasing trade.

MEETING OF THE SOUTHWESTERN NURSERYMEN'S ASSOCIATION, WHICH MET AT SHAWNEE, OKLAHOMA, JANUARY 19-20, 1905.

The meeting was hurriedly advertised on account of meeting just after the Territorial Horticultural meeting, and many of the members of the Association did not have the time to get their business in shape, so they could attend. A good attendance was present, however, and a successful convention was carried out. A general programme was not prepared, but many good talks were given by the members, which was very instructive and beneficial to all. This being a call meeting, all the officials were made to hold over until the meeting in September, 1905, and the time for annual meeting set forward to the above date. To secure some needed legislation in regard to the nurseryman as well as the planter, was a leading feature of the meeting. Bills of this character were drafted and will be placed for the consideration of our legislature, now in session. Money and other articles of general value were freely subscribed to be used as premiums for articles to be exhibited at the meeting in September. There will be a grand effort put forth to make the September meeting one of the best of all held by the Southern Nurserymen Associations. A very low rate of fare is now promised by the different railroads.

A. S. PERRY, *Sec'y and Treasurer.*

THE SECOND ANNUAL DINNER OF THE NATIONAL ASSOCIATION OF RETAIL NURSERYMEN.

The evening of January 24th was a gala night at Masonic Club, Rochester. The occasion was the second annual dinner of the above young but important association. The meeting was well attended. Good nature and jollity flowed freely, in addition to coffee and *agua pura*—nothing stronger. All classes were well represented. Political shades, such as Brighton bolters—annexationists, Summerville Saxtons, carbonized paper exploiters were there in addition to the inimitable and soon to be famous nursery quartet made up of representatives of the long (F. Taylor) the short, (Wm. Pitkin of Pitkin St.) the fat, (Hooker) and the lean (Bowden). The members of the quartet were introduced by one of the speakers and may now be looked upon as an important part of the organization.

The intellectual part of the dinner was presided over with grace, firmness and tact by President William Pitkin.

Much credit is due the dinner committee for the completeness of the arrangements and for the smoothness which characterized the carrying out of the various details. The committee in charge was composed of B. F. Allen, W. W. Wynman and H. S. Taylor. They were indefatigable and efficient.

The speakers were Professor Craig of Cornell University, who dwelt largely upon the benefits of co-operation among nurserymen, taking occasion to enliven his remarks with a few cracks at nurserymen's fads and fancies. John Morey, Jr., of Dansville, spoke for the Retailers and Wholesalers and was crisp and to the point losing no opportunity to roast the toastmaster and the business manager of the NATIONAL NURSERYMAN. Rev. S. Bank Nelson of Rochester, who by the way carries a delightful suggestion of Scotch brogue, proved that he knew enough of the nursery business to get into the spirit of the occasion and make an entertaining and appropriate speech.

The whole affair was a shining success and every one says let the third anniversary soon roll round.

At the dinner the following Rochester firms were represented:

Allen Nursery Company, four; Brown Brothers' Company, eight; H. J. Bowden; E. G. Bowden; P. W. Butler; E. Brown Company; John Charlton & Sons; Charlton Nursery Company, three; Chase Brothers' Company, seventeen; Gilbert Costich, two; Ellwanger & Barry, two; Glenn Brothers, two; F. E. Grover & Company; Graham Nursery Company, two; Gillies Lithograph Company,

two; Hawks Nursery Company, three; Hooker Wynman & Company, six; George Jenny; J. B. Kiley; R. D. Leutchford; W. H. Mead; George Moulson & Company; Oliver Brothers; National Nurseryman Pub. Co., two; C. H. Peck; H. C. Peck; H. D. Pratt; Rochester Lithograph Company; Irving Rouse; D. A. Skuse; Rochester Nursery Company, W. W. Steele, one each; Taylor Nursery Company, four; Western New York Nursery Company, two; Allen L. Wood, C. L. Yates, two; James Vick's Sons, two; Vick & Hill, two; Vredenburg & Company, two.

The out-of-town firms represented were: Nelson Bogue, Batavia; R. G. Chase Company, Geneva, two; Clark Nursery Company, Waterloo; George Brothers, East Penfield; Hill Brothers, Irondequoit; F. M. Hartman, Dansville; Jackson & Perkins Company, Newark; George Josselyn, Fredonia, two; Maloney & Son, Dansville, two; Morey & Sons, Dansville, two; J. Frank Morris, Brighton; Peirson Brothers, Waterloo; W. & T. Smith Company, Newark, five; Storrs & Harrison, Painesville, Ohio. J. H. Dayton, representing the last named company was the only person present from other than New York State.

At the tables were: G. C. Perkins, Charles J. Maloy, A. D. Pratt, F. G. Moulson, J. B. Morey, Jr., John Craig, William Pitkin, S. B. Nelson, George S. Josselyn, George T. Keith, F. M. Hartman, W. C. Barry, J. H. Dayton, Nelson Bogue, Irving Rouse, R. D. Leutchford, H. C. Peck, John C. Shaw, G. E. Wynman, E. S. Osborne, E. O. Graham, Joseph M. Charlton, G. T. Walters, C. H. Peck, E. C. Brown, F. E. Grover, A. H. Stuart, W. M. Gould, D. S. George, F. M. Phelps, F. V. Taylor, T. W. Benedict, C. C. Yaky, F. T. Burke, H. J. Bowden, Ernest J. Bowden, Edward Dern, Lorane Hayward, John D. Kase, C. L. Yates, F. J. Peirson, J. A. Charlton, E. B. Oliver, H. P. Hill, R. A. Mayo, George M. Pappert, Thomas Marks, P. W. Butler, William W. Steele, William T. Fonda, Gilbert Costich, Thos. McGlennon, Albert Vick, Fred W. Vick, J. A. Ryan, H. P. Freeman, James S. McGlennon, F. F. Andrews, J. F. Farber, Phillip F. Farber, D. H. Bradstreet, H. C. Phillips, George S. Taylor, W. B. Truesdell, Edward McCawley, J. S. McGlennon, A. E. Bicknell, N. B. Herrick, E. S. Finley, B. F. Allen, H. S. Taylor, Arthur N. Christy, Jr., Charles J. Brown, J. M. Pitkin, Jr., H. W. Meade, C. G. Hooker, O. G. Chase, W. W. Wynman, Horace Hooker, John Drechsler, C. W. Vredenburg, H. W. Clark, A. H. Dale, W. R. Love, J. A. Gillies, J. M. Campbell, Fred H. Lewis, L. E. Dake, Peter F. Willems, L. G. Pendill, W. J. Webb, H. B. Phillips, George C. Jenny, C. L. Boothby, D. A. Skuse, J. F. Dale, J. Francis, C. G. Schoener, G. Watson, C. S. LeClare, John Kusse, S. M. Allen, W. E. Miller, C. H. Haks, Allen L. Wood, A. A. Mosher, M. B. Fox, Ralph T. Olcott.

RESOLVED—That the entertainment committee know how to run a banquet.

That tree peonies are things of the not distant future.

That the Presbyterian parson ought to have been a nurseryman.

That iceberg blackberries were roasted often enough to at least thaw the ice.

That according to the professor's tell there, is still something for the nurseryman to strive for.

February Trade Jottings.

Grape cuttings in quantity are offered by D. C. Benton, Lake View, Miss.

Hoopes Bro. & Thomas, Westchester, Pa., are headquarters for park and avenue trees.

Rhododendrons, roses and azaleas are offered by P. Ouwerkerk, Jersey City, N. J.

The Vincennes nurseries of Vincennes, Indiana, are long on apple, peach and plum trees.

The John A. Salzer Seed Co., La Crosse, Wis., offer special varieties of barley, oats and wheat.

The Dayton Fruit Tree Label Company of Dayton, Ohio, are in the field with a full line of standard labels.

Dorothy Perkins (rose) is still at home to callers in the office of Jackson & Perkins Company, Newark, N. J.

Thomas Meehan & Sons' spring catalogue is something that belongs strictly in the elite class of periodicals.

The Forest Oak Nurseries of Quincy, Ill., are making a specialty of Bayard & Rohes favorite apple and the Illinois peach.

Holland & Company of Plymouth, Indiana, are wholesaling maple, catalpa, black walnut and evergreen seedlings.

Northern dealers will do well to consult the trade lists of E. M. Sherman, Charles City, Ia., for hardy fruits and ornamentals.

The man who has the idea of planting forest trees, wind breaks or shelter belts should consult Fairbury Nurseries of Nebraska.

H. M. Simpson & Sons, Vincennes, Ind., have a fine stock of one year old cherries, which it will be well for the retail trade to investigate.

Nurserymen should consult the special makes of nursery and vineyard sprayers offered by E. C. Brown Company, Rochester, N. Y.

The catalogue of J. G. Harrison & Sons promises to be a very attractive pamphlet if the handsome covers are any indication of what they contain.

Ornamentals, Climbers and Roses in variety constitute an important part of the offerings of the Charlton Nurseries Co., Rochester, N. Y., for February.

Lord & Burnham Co., Irvington on the Hudson, N. Y., are preparing for the special gardening trade and have on hand a large quantity of hot bed sash and frames.

The Mount Arbor Nurseries, Shenandoah, Iowa, are offering a very full assortment of all lines of ornamentals and fruit trees. "Complete" is their watch word for 1905.

J. G. Harrison & Sons, Berlin, Maryland, illustrate two parts of their interesting nursery in the advertising pages of this

issue. The strawberries and Kieffers are not in the same class with the peaches in buggy.

In the advertising columns this month is the announcement of the Mount Arbor Nurseries of Shenandoah, Iowa, E. S. Weleh, proprietor. They are fully justified in claiming to be a complete nursery as there are few in the country with larger plants and none carrying a more complete assortment. They want to send their wholesale lists and bulletins to all in the trade.

The M. J. Wragg Nursery Company of Des Moines has recently been organized with M. J. Wragg former president of the Iowa Horticultural Society as manager. This company expect to grow and deal in a general line of plants, fruits and ornamental shrubs especially adapted to the Mississippi Valley. The company is to make a specialty of Landscape Gardening. We wish them all success.

—Henry Schroeder the veteran nurseryman of Sigourney, Illinois, prefaces a little talk to his patrons with the following reminders: "That the first year after the wedding is called the cotton, the second the paper, the third the leather, fifth the wood, seventh the wool, tenth tin, twelfth the silk, fifteenth the crystal, twentieth the porcelain, twenty-fifth the silver, fortieth the ruby, fiftieth the golden and seventy-fifth the diamond anniversary." Mr. Schroeder has been a resident of Keokuk thirty-five years and a lover of trees all his life.



WILLIAM PITKIN, PRESIDENT.

Quiz Column.

DISEASED PEAR.

I send you a pear affected by a disease or insect. Please tell me about it?

South Byron, N. Y.

C. E.

Answer:—The Winter Nellis pear you forwarded is attacked by the same disease which causes the familiar black spots on apples. This disease attacks both apples and pears. It may be prevented by spraying before and after blossoming in the spring. The past season has been unusually favorable for the development of the disease, and in some parts of the country it has caused a great deal of damage. The standard remedy is Bordeaux mixture.

PROPAGATING CURRANTS AND GOOSEBERRIES.

Please give us some information concerning the growing of currants and gooseberry cuttings; we have tried it twice and failed. We have just ordered a number of cuttings and wish to plant them according to your instructions. Would you plant them now (November) in sand? If so would you put them in a cellar in box or in an out building which would you do put the *tops* down or *buts*? Would you cover them entirely up?

Ohio.

SMALL FRUIT GROWER.

NEBRASKA.

Editor National Nurseryman:

A fair rental price for land here in Nebraska where we are located would be about \$3.50 per acre, yet the same class of land will rent at Topeka, Kansas, for from \$9 to \$11 per acre. In answer to question No. 1 we do not think the nursery stock exhausts the land any more than ordinary farm crops, in fact we have better results in planting corn or grain following nursery stock than we have on land that never had nursery stock on it. We have orchards bearing, on land that had been in nursery stock for a number of years before the orchard was planted. We have never grown a cover crop in the nursery as we cultivate clear up until the last of August, and keep the ground loose letting the earth act as a mulch.

YOUNGERS & Co., Geneva, Neb.

Ans. 1—From mere observation we would say that it seems the exhaustion is only temporary at times and not real. We notice we get excellent crops of corn, and millet following trees, although in the fore part of the season while plants are small they often appear weak and yellow, but recover from this as the season advances and seldom fail to make heavier crops than when they follow ordinary farm crop.

Ans. 2—We grew an excellent 40-acre orchard on such land.

Ans. 3—Although we have practiced this but little we believe it will prove of great value.

Ans. 4—We always try to get the very best land obtainable, and feel that we can afford to pay about 1½ the price paid when ordinary crop is grown. We consider the clean, thorough, deep cultivation we give of great advantage to the land and we have noticed that the corn crop for two or three years showed better growth in the section of the field where we had grown a crop of forest seedlings and given deep cultivation when seedlings were dry than elsewhere.

J. A. GAGE, Beatrice, Neb.

THE NATIONAL NURSERYMAN PUBLISHING CO.,

Rochester, N. Y.

Enclosed find check for \$1.00 covering renewal for the NATIONAL NURSERYMAN. Also check covering advertising bill.

We find the NATIONAL NURSERYMAN very helpful and are much pleased with the energy shown in the get up of recent issues.

Yours truly,

Missouri

NEW NAVEN NURSERIES.

GEORGIA INSPECTION LAWS.

The following Rules and Regulations are now in force in Georgia.

"All trees, shrubs or other plants commonly known as nursery stock (with the exception of conifers and strawberry plants) offered for sale, sold or given away in this State shall be fumigated with hydrocyanic acid gas by the grower, under the direction of the State Entomologist. Each and every nurseryman within this State, growing nursery stock for sale, shall construct and maintain upon his premises an air-tight fumigating house or box, and shall maintain such fumigatorium in first-class condition for fumigating nursery stock, between the 1st day of August each year and the 1st day of May following. Said fumigating house or box shall be regularly inspected by the State Entomologist or his assistant in connection with the inspection of nurseries, and the owner of each nursery shall be required to demonstrate to the inspector that he has practical working knowledge of fumigating methods. Upon failure of the fumigating house or box to pass a satisfactory inspection at the time the nursery is inspected each year, no certificate shall be granted until such fumigatorium has been placed in condition for properly fumigating nursery stock. The expenses of the inspector, when making an inspection of such fumigating house after its repair or alteration, shall in all cases be paid by the nurseryman. Upon failure of any nurseryman or dealer in nursery stock to comply with these requirements certificate shall be withheld or cancelled."

(The above regulation supersedes Regulation No. 12, on page 8 of Bulletin No. 10 of the Board of Entomology. The Regulations given below are new, and do not in any way modify or change the regulations already in force, which are given in Bulletin No. 10.)

"Certificate tags of a standard size shall be secured through the State Entomologist, for attaching to all shipments and deliveries of nursery stock within this State. Such tags shall bear the printed seal of the State Board of Entomology and the *fac-simile* signature of the Entomologist, and shall be furnished to nurserymen holding proper certificates at the schedule of prices given in Regulation 9."

"On and after January 1st, 1905, all nurserymen or dealers in nursery stock, selling nursery stock within this State, shall be required to thoroughly fumigate, in accordance with the directions furnished them by the State Entomologist, all nursery stock which they may receive from points without the State, before selling or delivering such stock within this State."

"Upon the inspection of any nursery, the owner of said nursery, when requested to do so by the State Entomologist or by the Inspector, shall file with the State Board of Entomology an affidavit to the effect that all nursery stock grown by him, or for him under contract, has been inspected and that the inspector has been advised of the location of all nursery stock owned, controlled or contracted for by him. Certificate shall be withheld until such affidavit is placed on file."

Respectfully Yours,

WILLIAM NEWELL,

State Entomologist.

EDITOR NATIONAL NURSERYMAN:

Nebraska nurserymen made about the usual plant last season, generally with good results, the stand averaging very fair and with growth exceptionally good. The Nebraska fruit crop for 1904 was, on the whole, hardly satisfactory, although strawberries, early cherries and peaches fruited profusely and were of the best quality. The apple crop in Southern Nebraska was very fair in quantity; Northern Nebraska very light, fruit good size, but more or less affected; hence not keeping satisfactorily. We are having a very cold January, but the ground being covered with a coating of about 10 inches of snow, we hardly anticipate any damage to the 1905 fruit crop, unless this should prove a little too much for the peaches. The west central states are, generally speaking, in fairly flourishing condition, hence, we nurserymen look forward to a fair spring's trade. Yours truly,

Arlington, Neb.

MARSHALL BROS.

ABSTRACT OF A PAPER READ BEFORE THE PENINSULA HORTICULTURAL SOCIETY TREE—BREEDING AND TREE GROWING.

BY ORLANDO HARRISON OF THE FIRM OF J. G. HARRISON & SONS, BERLIN, MD., JANUARY 18, 1905.

It was Delaware and Maryland orchards that made the reputation years ago for fine fruit, the orchards are to-day being replaced and fruit is now grown with equally as good quality as ever in the past.

This Peninsula was first known for its fine fruit and the reputation made by our forefathers should be maintained and can be by the fruit grower who has grit, and push to select and breed from the start.

From a conservative estimate, I believe there has been planted the past year more than four hundred thousand trees on the Eastern shore of Maryland and Delaware by the best fruit growers. Why are our growers able to plant now as they have not for twenty years or more? This question is unanswered in part.

IMPROVE BY SELECTION.

The Master of the Delaware State Grange in a recent Horticultural Meeting held in Pennsylvania, when he said, "Much credit is due the Nurseryman for this by more careful selection of peach seed. Others attribute success to small orchards scattered over the greater acreage. Now, that this second planting is being done, most of the planters to-day on this Peninsula have had some experience in varieties and the different strains of varieties.

Some years ago there was much said about the Reeve's Favorite being such a shy bearer. To-day we do not hear that complaint. I planted some of Reeve's Favorite ten years ago to cut buds from and they have had annual crops of fine fruit.

I was in Mr. Morrill's orchard in Michigan some years ago. When he went over the orchard he emphasized that certain varieties had paid him much better than others and he thoroughly believed in the breeding system of varieties—that is he would select the trees that produced best and bud from them. I understand he has followed that system and has made a success. When I was in Toledo last summer I found his goods on the market there from his plant in Texas. I am informed he will plant one hundred thousand Elberta peach trees alone.

WEED OUT THE POOREST.

During the last fruiting season I was in twenty different states and more than one hundred orchards. When at Ft. Valley, Ga., in June, at Mr. Hale's place he gave us an interesting side-show for a few minutes when he demonstrated what could be done in handling different varieties from the tree to the refrigerator car from a large field of trees. Poor varieties have been discarded and other varieties budded as they proved profitable. He had been able by close observation to see the ones that earned their expenses. The same thing is going on at Marshallville, Ga.; again in West Virginia by the Miller Brothers, and in Maryland we have many growers who value and select the strain of varieties in the orchard.

TO GROW A TREE.

To grow a tree is much like the development of a business and its financial success depends very much on the same kind of treatment. To begin with, the article upon which the business is based must be good.

No growth however, can be symmetrical and solid if care is not taken to cultivate the soil and prevent disease. The Elberta is a case in point. Its adaptability to every state which accounts for the universal demand.

To-day hundreds of thousands of trees sprouted on the Eastern shore are planted in every state and territory as well as in Canada and their growth is quite rapid and symmetrical as ever, so not only the fruit is grown but the trees as well. When it comes to tree breeding and tree growing, stay where you are on the Eastern shore and plant an orchard and improve your opportunities.

JUDGING FRUIT BY THE SCORE-CARD METHOD.

A class in systematic and descriptive pomology of the Department of Horticulture at Cornell University added a very interesting feature to the meeting of the State Fruit Growers at Geneva, N. Y., recently. The members of this class gave a demonstration of the methods employed when fruit is judged by a system of points which proved interesting and instructive.

IMPORTANT REASONS FOR ATTENDING THE MEETING OF AMERICAN ASSOCIATION OF NURSERYMEN AT WEST BADEN, IND., ON JUNE 14, 1905.

The year 1904 has become a matter of history, we enter the new year with new resolutions renewed hopes and new plans as to the season's business. To the nurserymen who are not members of the American Association of Nurserymen allow me to suggest that one of your new resolutions be, to become a member of same and to those who are members would say, you have only planted the tree and will not be able to gather a bountiful crop until you have cultivated the acquaintance of your brother Nurserymen. By attending these meetings you become better acquainted with the Nurserymen you have dealt with, form new acquaintances, cultivate the fraternal spirit so that your competitor becomes your best friend; learn new methods, broaden your views of mankind and go home a wiser and better citizen.

Some may say I cannot afford the trip. You cannot afford to stay at home. Our lives are what we make them. If we stay at home and work all the time we become narrow in our views, set in our ways and get into a rut that is very hard to get out of; and the business is likely to go to the other fellow.

You owe it to yourself and to your family to take a little vacation and rest, remembering that it is not the few dollars we can make in this life that makes it a success but the good we can do to others for the betterment of the world. The conventions are what we make them. It is not what we sell or what we buy that makes a successful meeting. But it is the number of new friends you make, renewing former friendships and getting all you can out of the valuable papers and addresses; taking part in the discussions and supporting the officers and committees that have the work to do at each meeting and giving them your undivided support. By doing this you increase the interest which will in time increase attendance and membership.

If we are to get the legislation we need and the freight rates and other vital matters pertaining to our business, we must make a good showing and put up a strong fight as all other lines of business are doing. If we can benefit the association we are bound to benefit ourselves.

The place of meeting is centrally located and can be easily reached from all parts of the country. The railroads promise us through cars without change from St. Louis, Chicago, Philadelphia and Chattanooga or any other place where there are enough to make up a good sized party. If the nurserymen from the different sections will arrange a meeting place they can have a very pleasant trip enroute.

The hotel accommodations are equal to the best in the country and can accommodate all that come so that part of the crowd will not have to go out and hunt other quarters. However, there are plenty of other hotels if they are wanted. The Assembly Hall is large. The amusements are varied, and for a place to rest and spend a few days or weeks it cannot be surpassed.

As vice-president for Indiana, I would say that we expect to increase the membership and attendance very largely from our state, and trust the vice-presidents and members from other states will get to work and help us to make this the banner convention. While we have no large orchards to show you as our Georgia friends had last year, we hope to have some new features and attractions that will be worth your while to see. There are no World's Fairs to go to this summer so arrange your affairs to be with us and bring the ladies. They need the rest as well as you do.

Respectfully,

Vincennes, Ind.

W. C. REED.

The Gardening World notes the exhibition of the new Bougainvillea Mond Chettleburgh by Col. Rous, Worsted House, Norwich.

This variety was characterized by the large size of its broets and their great number. These were of rich violet rose color and produced in great profusion on long, drooping stems. Small plants of it flower quite freely. An award of merit was accorded it by the Royal Horticultural Society. A fine illustration accompanied the article.—*Gardening World*

THE UNIFORM BILL OF LADING.

The following letter speaks for itself:

New York, December 27, 1904.

INTERSTATE COMMERCE COMMISSION,

Washington, D. C.

GENTLEMEN: Permit me to add my protest to the use of the so-called uniform Bill of Lading and freight rate increase, as proposed by the Trunk Line Association, and which question is now, I understand, before you for determination.

The present transportation rates, both for local and through service, are now so high that any device, either by the adoption of a new form of Bill of Lading, or otherwise, that will result in increasing this cost, would be, I believe, an inexcusable additional increase to the burden of the present transportation charges.

The increased traffic of the railroads, and improved facilities should, in my judgment, invariably result in reduced rates to the public; and under no circumstances should an increase, through this Bill of Lading device, be permitted.

In one of my recent shipments of six cases of trees from Niles, California to New York, the freight charges were more than the value of the stock, viz:—\$84.00 to New York.

As a constant shipper for the past twenty years of nursery material over the various trunk lines, I wish to emphasize my conviction that the proposed increase in freight charges is not even a debatable question. I cannot believe that you, representing the people and having the interests of the country at heart, will permit the wrong on the shipping public that the proposed uniform Bill of Lading, with its prac-

tical increase of twenty per cent. in freight rates,—or any other per cent. of increase—will entail.

Very respectfully and truly yours,

(Signed)

FREDERICK W. KELSEY.

EDITOR NATIONAL NURSERYMAN.

I am glad to see that you have taken up the question of increased freight rates.

It is in my judgment, high time that the business interests of the country, including nurserymen, "line up" against the injustice of the proposed increased freight rates; and I am decidedly in favor of emphatic and united action upon this question.

New York.

FREDERICK W. KELSEY.

THE EXHIBITION SEASON.

The State fairs appear to have been universally successful this year. Most of them are experiencing a steady growth from year to year. The growth of some is along the line of steady improvement. The educational sides are being developed. In others the purely sensational features are coming into greater prominence. This is to be deplored. Among the really great fairs of the country and one which is now occupying a place of national importance is the National Industrial Exposition, held annually in Toronto. The daily attendances of this fair have been approximately 100,000 and occasionally reach the 150,000 mark. This is remarkable considering the location and the fact that the population of Canada is sparse and distributed over wide areas.

The floral part of this exposition was particularly interesting this year. William Scott of Buffalo acted as judge, and appeared to give excellent satisfaction.

BUSINESS LOCATION AT DANSVILLE, N. Y.

We wish to give our attention to a specialty requiring much less land and more limited facilities. We offer for Sale our Storage Cellar and Packing Sheds, covering nearly one-fourth acre. Frost proof Storage Cellar, 72 x 64 ft., fitted with steam for severe weather. Located above D. L. & W. tracks, with inclined roll-way for easy loading of cars on siding. Short distance from D. L. & W. depot. One acre of land. This is a splendid location and a good opportunity. Dansville has many advantages for the retailer and grower alike. No San Jose Scale. We also offer one of our farms near by; 66 acres, heavy nursery land. In addition we offer complete steam digging outfit. Dansville Steam Digging Machine and 18 H. P. Double Cylinder Buffalo Pitts engine, good as new. Will sell together or separate.

THE ROGERS NURSERIES, DANSVILLE, N. Y.

SALZER'S SEEDS



Beardless Barley
The barley of your dreams; no heads; easy to harvest; always big yielding. Mr. Wells, of Orleans Co., N.Y., threshed 121 bu. per acre. You can beat this in 1905 if you try.

National Oats
The marvel and wonder in oats. Will yield for you on your own farm from 150 to 300 bu. in 1905. Try it.

Billion Dollar Grass and Teosinte
The two greatest forage plants of the century. Billion Dollar Grass will produce 12 tons of magnificent hay and Teosinte 80 tons of green fodder per acre. Catalog tells about it.

Look At These Yields
Speltz, 80 bu. grain per acre, and 4 tons of hay besides.
Macaroni Wheat, Rust Proof, 80 bu.
Victoria Rape, 40 tons of green food per acre.
Pen Oat, 85 tons.
Earliest Sweet Cane, 60 tons green food.
Potatoes, 800 bu. per acre.

Now such prodigious yields pay. You always get them when planting Salzer's Seeds.

Onion Seed 60c
a pound, and other vegetable seeds just as low. We are the largest Vegetable Seed growers in the world, operating 5000 acres.

\$10.00 for 10c
We wish you to try our great Farm Seeds, hence offer to send you a lot of Farm Seed Samples, fully worth \$10.00 to get a start, together with our great seed catalog, all for but 10c. postage, if you mention this paper.

John A. Salzer Seed Co. LA CROSSE WIS.

We Offer to the Wholesale Trade a
Large Stock of the Following

APPLE
of Northern Sorts

GRAPE VINES

EVERGREENS
Both Transplanted and Seedlings

ORNAMENTAL TREES

FLOWERING SHRUBS

ROSES

VINES

Please submit list of wants for prices.

SHERMAN NURSERY CO., Charles City, Iowa



BLUE FRINGED GENTIAN.

DID you ever see the rarely beautiful Blue Fringed Gentian? This is our perfect photographic and color record of it, as used on the 1905 Catalogue of F. H. Horsford, Charlotte, Vt.

It hints at our resource of illustration, as well as at our skill in color printing. We have 8,000 other pictures, and among them are those that will make good business for the nurserymen who know how to have us use them properly, and who back them up by good business methods. The old fashion of selling trees and plants is dying out, but there is ready and waiting for the nurserymen who are advancing an ever-increasing and thoroughly profitable business in supplying the growing adornments required for a million homes in this great country.

These new nurserymen have their eyes wide open; they know and sell good things, whether new or not; they grow well and

pack well, and look sharply after the customers who have trusted them. They are *not* booming unworthy "novelties," for a temporary profit, nor are they showing impossible plate-book pictures or absurdly exaggerated catalogue illustrations. These relics of a by-gone age are left for the dying nurserymen of the old fashion.

We have the ideas, the pictures, the skill, the experience and the facilities to serve the new nurseryman. The other kind,—well, he says our prices are too high!

Information as to catalogues and pictures and prices for the asking.

J. HORACE MCFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA



Best in the World



THIS is from the cover page made for the Spring Catalogue of the Elliott Nursery Co., Pittsburg, Pa. Mr. Elliott speaks of his stock as the "Best in the World," and we don't believe the phrase is amiss in characterizing our photographs and engravings, of which this is a fair sample.

The Snowberry picture (it is *Symphoricarpus racemosus*) is only one of our 8,000 subjects. We make photographs and engravings as we make catalogues—to SELL good trees and plants, seeds and bulbs. All our work is carefully done, in a great model plant, using forty-six electric motors as well as competent brains.

Our catalogues and illustrations are the cheapest in America in the long run, though they cost more at the start, usually. Write us for really efficient nurserymen's printing, but not for "stock" catalogues or ordinary colored plates, or the cheapest, meanest catalogues, made regardless of accuracy or beauty.

J. HORACE MCFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., MARCH, 1905.

No. 3.

An Interesting Story With a Point To It.

BY A MODEST MEMBER OF THE PROGRAM COMMITTEE.

(Preliminary Program on Page 53).

PART I.

Many nurserymen in Maryland, Virginia, Tennessee, Georgia, North Carolina, Alabama, etc., depend on Cowpeas for soil improvement. At Huntsville, for ten years, Mr. Heikes and others have sown to Cowpeas all land cleared of nursery stock the previous season, and have thought this the best and cheapest fertilizer. The vine has been cut for hay, which is of good quality, its market price per ton being very near that of timothy. We have known the chief fertilizing value was in the root.

New York, New Jersey, Ohio, Michigan, Illinois nurserymen have depended on other leguminous plants, many have not known their value. Last June, on their journey to or from Atlanta, many nurserymen visited Huntsville, about 999 % noticed the fields of Cowpeas, all asked questions and went to the barns to examine the hay; many arranged to secure 1 to 5 bushels of seed, for testing.

PART II.

Knowing what leguminous plants have done for us; knowing nurserymen generally were intensely interested in this matter; knowing of questions on this subject we would like answered I wrote Col. Brackett, (Department of Agriculture) a former Vice-President of the American Association of Nurserymen, calling his attention to the Century article, saying we would like to have a man who knew all about this matter, at West Baden, to give us a short paper, and answer questions. I said "Questions not strictly pertinent may be asked, but all with the best feeling and intent, therefore we wish we could have, first, a man who knows; second, if possible, a man who is easy and happy, who will answer in the spirit of inquiry." Col. Brackett wrote, "Dr. George Moore is the man you want."

Dr. Moore wrote he would go to West Baden, give us a paper on the subject as applied to the particular needs of nurserymen and answer questions,—he too, believes in questions.

Dr. Moore is the man in the U. S. who perfected the process of preparing and using bacteria, in connection with leguminous plants for soil improvement, and who patented his discovery for his Government, so that any poor chap could benefit; I presume he could have made a clean million out of it.

I do not know George Moore. I am told by a man who does know him, "He is a man of splendid address and a pleasant speaker. He takes kindly to questioning, and the members need not hesitate to fire questions at him."

PART III.

Upon learning there was a probability of securing Dr. Moore, I asked the Century Company if we could arrange for 1,500 reprints of Mr. Grosvenor's article, to mail to the nurserymen of America to arouse interest in our convention. A reply was received from Mr. W. W. Ellsworth, Secretary, saying they did not care to furnish a part of the magazine, but that they would "take pleasure in mailing 1,500 copies of the October magazine to the nurserymen free of charge." The complete magazine will do us more good than Mr. Grosvenor's article alone, I told Mr. Ellsworth as much, thanked him and accepted. I have sent to Mr. Ellsworth a list of nurserymen, embracing all firms in this country East of Denver, and all leading firms West of Denver. Mr. Seager has a duplicate list, the magazines went into the mail one day after a letter from Mr. Seager. Mr. Seager called attention to the article in the Century saying Dr. Moore would be on hand, at West Baden to answer questions. I invite all to look up questions they want answered.

It seems to me this subject alone, in the hands of George Moore, should take every live nurseryman to West Baden. A few weeks ago a Dansville, New York, nurseryman told me clover grew but poorly with him, another, less than a mile away, said clover grew luxuriantly. There is a reason. George Moore can tell us why.

As you probably know, many of us are not entirely at ease when listening to a paper by a man who understands and uses scientific, technical terms, as a rule nurserymen like easy, every-day, words. Some of the best nurserymen in America are in this class; men with clean, liberal, broad minds; their word is their bond; they do not deal in seed of the seedless melon, nor scions of the coreless apple. Such men honor any profession, and to be counted in that class any nurseryman is happy.

I think it will do good to let the nurserymen know George Moore is a man, that he will talk direct to us in plain words, that he expects questions and will do his best to answer.

I wrote thirty-five leading firms asking suggestions as to the best manner of handling this thing for the mutual good, I think all have replied, many knew we used cowpeas and in their replies they refer to cowpeas only. It is not a question of cowpeas, but leguminous plants, therefore, do not mention Cowpeas unless in connection with other plants of that class, as "clover alfalfa, vetch, soy beans, cowpeas, etc." I think there are legumes that will do well where cowpeas fail.

It seems to me that West Baden is the best place the Association has known for a business meeting. I do not know of side trips, horse races, or other distractions. I shall do my best to hold them off until after the days set aside for the meeting. The idea of a business meeting, for making a dollar or learning about it, will attract more than an excursion. We ought to have an attendance of 100%. A good program will help, and the suggestions of nurserymen along this line will be appreciated by the program committee.

What's Going On

By SPECIAL CORRESPONDENTS.

NEW ENGLAND NOTES.

All signs point to a good volume of business among the eastern Massachusetts nurserymen who seem to be well prepared for the market.

The Shady Hill Nurseries report many of the best ornamental shrubs in large wholesale quantities.

A visit to the nurseries of W. B. Whittier & Co. shows a particularly fine condition of stock in large blocks of those ornamental shrubs in greatest demand for large park and landscape planting. An addition, within the last two years of about 150 acres of superior land, shows their faith in the future nursery trade. Nearly all this acreage together with the older portions of their grounds is now in active use.

W. H. Wyman & Co. are also well stocked with ornamental shrubs in large quantities. Much expense has been wisely incurred by this company in thorough drainage. An extensive area has been set aside too for a varied list of Hardy Herbaceous Perennials.

J. I. Heurlin at So. Braintree has added a large farm to his holdings and intends to very materially add to his output. He reports too, a forty acre addition in New Jersey.

The Landscape Architects report a rather quiet winter but with prospects of a rush in the early spring.

Renewed interest is being created in Dwarf Fruits. A lecture at the Massachusetts Horticultural Society on the 11th instant, by Professor Waugh has set people to thinking of their value for the small suburban lot owner.

Reading, Mass.

J. WOODWARD MANNING.

THE CENTRAL REGION.

We have had a very fine winter. It has been pretty cold the past week, but not severe enough to injure stock because it is protected with a good heavy snow covering.

Agents generally have been doing a very fair work with indications of a very good spring trade. Prospects for spring clearing are better than we have had for several years as we do not think there is anywhere near so large a line of stock in storage as there has been in the past, and there certainly will be no occasion for the big bonfires that we have had in some past years.

We are still pounding away on the Transportation question, and are getting some very encouraging letters from R. R. officials, pledging us their support. Prospects are brighter for securing a return of 3d class on boxes, L. C. L. in the East, and of course such a concession by the Official Committee will be an aid to us in securing further concessions with the other committees.

Bridgeport, Indiana.

E. ALBERTSON.

SOUTHERN NOTES.

Last week we had a small sized blizzard. The mercury at Augusta dropped to 14 above and at our place at Mayfield 10 above, with a thirty-five to forty mile breeze. In the lower part of the state some damage has been done to early truck, but the peach crop is not injured in the least. The trees so far as we have noticed in Central Georgia are in good shape and have on them all the buds they need.

Augusta, Georgia.

L. A. BERCKMANS.

A cheerful letter from friend Taber of Glen St. Mary, Florida, states that although there have been some recent weather unpleasantnesses in that district, the public must not believe that the Floridians are completely knocked out. Taber is still in the ring, and has lots of citrus fruits for sale, and in good condition. We sincerely trust that the story of the winter cold of 1905 has been concluded, and that there may be no relapse.

MICHIGAN CORRESPONDENCE.

MONROE.

The weather in this vicinity this winter has been a trifle colder than last winter. The thermometer registered quite low the first week in February. There is a great deal more snow, nearly twelve inches at present writing, which affords much better protection for growing stock than was had last winter.

The Greening Bros. Nursery Company of this city, report their retail business as very fair this season. Careful inquiries among the Michigan nurserymen shows that the retail business will not average up quite as high as that of last season.

Edmond Vanderheyden, the popular shipping clerk for the Greening Bros. Nursery Company of this city, is making preparations for his twenty-second trip to Europe. Mr Vanderheyden has been looking after the growing of bulbs in Belgium and roses in France, for Michigan nurserymen, for some years past and is an expert in this line. He is also very clever as a shipping clerk having been employed with different railroads for over ten years.

John Havekost, the father of Geo. H. Havekost proprietor of the Oak Grove nursery of this city, died Feb. 11th at the residence of his son, in Frenchtown, Monroe County, having been a resident of that place for upwards of forty-six years. Deceased was born in Germany in 1823 and having followed the occupation of sailor on the ocean for eight years he went to the gold mines in California. He was a successful miner and after having secured a competency he returned to Germany where he married. He again returned to America in 1858 and bought a farm two miles northeast of Monroe where he has lived ever since. This property is now used by his son George for nursery purposes. C. J. M.

KALAMAZOO.

John H. Dayton of the Storrs & Harrison Company, was a visitor in our city on the 6th inst. Mr. Dayton is always a welcome guest among the nurserymen of this city.

W. W. Joiner of L. Green & Son, Perry, Ohio, visited Kalamazoo the first of the month.

This city has been nearly snowed under during the past ten days, there being nearly five feet of snow. It is the opinion among fruit growers that buds have suffered no material damage up to this time.

Few men in the nursery business have been so long engaged in their chosen vocation as two of our fellow townsmen, L. G. Bragg and James Jerffery, who are still as active as many of the young men, although each of them has passed the allotted three score and ten. The nursery business is evidently conducive to longevity.

C. A.M.

BREEZY NOTES.

FROM OUR KANSAS CORRESPONDENT.

F. W. Watson, J. F. Cecil and A. L. Brooke served as appraisers for the firm of Peters & Skinner for the purpose of probating in the Ohio courts. The long list of property shows the great stride this energetic firm has made towards real success. Owing to the recent death of Mr. J. W. Peters the firm will close up its affairs in the near future and the business will be conducted under a different name.

(Continued on page 52.)

Special Correspondence.

GRADING OF NURSERY STOCK AN IMPORTANT ISSUE.

The subject of a uniform system of grading nursery stock is a matter which should be looked into; and the Nurserymen from the different sections of the country should practice more uniformity of grade. At the next meeting of the National Association of Nurserymen we think it would be well that a committee should be appointed to thoroughly investigate this matter and establish a schedule of rules for grading different classes of nursery stock. If this could be accomplished it would save an immense amount of dissatisfaction and sometimes litigation between the nurserymen and the purchaser. Some nurserymen caliper at the ground line, others at the junction of bud with stock, and others at various other places. We think the caliper should be taken about four inches above the junction of bud with stock. This would be well above the swelling and would be fair for all parties. Grafted stock, of course, should be calipered at the ground line. Again some Nurserymen will bud certain trees, such as pecans, chestnuts, etc., from one to three feet above the ground, but in quoting this stock give the height from the ground and omit to state that the trees are top worked at so many feet (giving distance from the ground), and also fail to state the growth of the bud or graft. We think it would be well to bring this matter before the nurserymen previous to the meeting; as it is high time that the matter of grading be carefully considered and if possible permanently settled.

L. A. BERCKMANS,

Augusta, Ga.

P. J. Berckmans Co.

Writing again Mr. Berckmans says:

In addition to my letter of the 28th to you in which I referred to grading of nursery stock another important item suggests itself to me. It is well enough to apply the sixteenths of an inch rule to seedlings and small stock for grafting or lining out, but when it comes to the regular grades of trees I think the sixteenths of an inch should be eliminated and nothing but the eighths of an inch be used.

L. A. BERCKMANS.

THE GRADING QUESTION.

MR. BROOKE OFFERS IMPORTANT SUGGESTIONS.

I consider the grading of nursery stock a matter of the greatest importance. Indeed it is only surpassed in importance, by stock being healthy and true to name.

Every honest wholesale nurseryman desires to have his stock please his customer, and it is a great recommendation to him to be known as an individual who is up on grades. It takes a quick eye and reliable judgment to grade either trees or seedlings accurately.

Custom varies in different localities. In Topeka a first class tree is supposed to caliper $\frac{3}{4}$ inch from three to six inches from the collar. Caliper of all lower grades to be taken at the same place. Height and the general make up of the tree enters into the making of the grade. It matters not what grade the tree enters, it is supposed to be a perfect tree in its

grade. In grading cherry the caliper is always taken above the union.

I am a stranger to nut culture, but I suppose the same rule would apply.

The grading of seedlings especially apple, has become almost the "whole thing." A No. 1 apple seedling is always supposed to mean one that will caliper 3-16 at the collar, or where the yellow of the root meets the green of the top. Recently the caliper has been applied eight inches from the collar. This is no standard and should never be allowed to become one.

A first class seedling should be one that will make three piece root grafts, which would indicate a length of some seven or eight inches. It does not follow that these grafts have to be all No. 1 grafts. An apple root that will make two No. 1 grafts and one No. 2 graft should be classed as a No. 1 seedling. On the other hand a seedling that will make one No. 1 graft and one, or two No. 2 grafts should be classed a No. 2 seedling.

I am fully convinced that if some rule, or set of rules could be adopted by the National Convention for the grading of trees and seedlings it would be of material benefit to the general nursery trade.

I hope to see this question extensively discussed in the columns of your valuable monthly.

Topeka, Kas.

A. L. BROOKE.

SUGGESTIONS OF A VETERAN GRADER.

I am usually very slow to respond to appeals for matter intended for publication. I should, however, have a voice in this subject if it is to be discussed in your columns as it was my privilege to introduce the caliper in grading trees about 45 years ago, when I was a large buyer as well as a large seller of nursery stock.

It has been my practice and I believe it has been pretty generally accepted that the proper place to caliper a tree in case of a bud inserted near the ground, is three inches above the point of union; in the case of a root grafted tree it should be calipered three inches above the ground. Seedlings sold as such for grafting, for transplanting or for budding should be calipered at the collar; rooted cuttings at the ground.

In the case of top worked trees the caliper should be used three inches above the ground and a description of the top be given.

In describing a grade by caliper, the caliper governs but it is customary to give the proximate heights, measured from the ground.

Huntsville, Ala.

W. F. HEIKES.

TIME REDUCED NINETEEN AND ONE-HALF HOURS TO MEXICO.

Wabash Line trains make close connections at St. Louis with trains via the Iron Mountain Railway and Laredo Route carrying through Palace Sleeping cars to the City of Mexico. Time is less than three days from St. Louis. Two trains Daily. You can leave St. Louis at 2.21 P. M. and arrive at City of Mexico 10.50 A. M. the third morning or you can leave St. Louis at 8.20 P. M. and arrive City of Mexico 7.30 P. M. the third evening. Mexico is a delightful and healthful winter resort. Your nearest Ticket Agent will give you full information or write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A., 287 Main Street, Buffalo, N. Y.

ATTRACTIVE ADVERTISING.

Readers of the NATIONAL NURSERYMAN have no doubt admired the beautiful inserts which have added so much to the appearance of the last two issues. These half tones and colored reproductions illustrate the highest type of photographic and engraving art. They are the work the of J. Horace, McFarland Printery of Harrisburg, Pa. How catalogues have improved in recent years! This improvement is largely to be credited to the chaste and artistic work of printers with the point of view of Mr. McFarland and his associates. The numerous favorable comments these inserts have elicited create conclusive evidence of the appreciation of nurserymen for good printing and refined illustration.

Personal and General.

—Geo. A. Sweet of Dansville has been the victim of a severe illness for several weeks past. He is slowly recovering strength.

—The Jewell Nursery Company of Lake City have a surplus of heavy three year old apple trees. Samples are available to those interested.

—The State Board of Horticulture of California is making arrangements for a distribution of the recently introduced parasite of the codling moth.

—The Brazelton Strawberry Company with capital of \$15,000 has been organized at Birmingham, Alabama, for the special purpose of growing strawberries.

—The family circle of Emory Albertson, Bridgeport, has been invaded by sickness which has greatly interfered with the activities of our energetic chairman of the Transportation Committee.

—Florida truckers are reported to have gone energetically to work and have replanted thousands of acres since the January freeze. The freeze was less destructive to fruit crops than first reported.

—It was estimated on February 1st, that there were nearly 1,000,000 barrels of apples in Western New York. Prices have advanced in the principal markets and with the moderation of the weather there should be a rapid movement of apple stock.

—There was organized at Gainesville, Georgia, last month the North East Georgia Peach Growers' Association representing 76,800 peach, 5,300 apple and 1,100 pear trees. President, R. H. Smith, Gainesville, Secretary-Treasurer, R. E. Andoe, Gainesville.

—Berry growers incorporate. The berry growers of Tropic and Glendale, California, have recently formed an incorporation without capital stock. There is an admission fee of \$50, with an installation fee of \$1. The business of the association will be carried on at Tropic.

—The month of February presented many frosty propositions. It was up to the produce dealer to know what to do with frosted apples nipped potatoes, congealed cabbage and cracked eggs. The dealer's life, in the words of Pinafore "is not a happy one" during these snappy periods.

—The Great Northern Nursery Company, of Baraboo, Wisconsin, have purchased some more land adjoining their packing grounds and have erected another large storage cellar, 50 x 110 feet. With the large storage cellars they now have, they are better prepared than ever to handle their ever increasing trade.

—Mr. A. J. Lopeman and wife, leading Horticulturists of Enid, O. T., have been touring the South in quest of recreation and health. They have just spent three weeks in Havana, Cuba, some time in New Orleans, and on their return home stopped at Sherman, Texas, to visit the horticulturists of the Red River Fruit Belt. Mr. Lopeman expresses himself very much charmed and benefited by his Southern trip in general, finding items of much interest in Cuba and is especially well pleased with the progress being made in North Texas. Mr. and Mrs. Lopeman returned to their home in Enid much refreshed and benefited.

J. S. K.

AMERICAN ASSOCIATION OF NURSERYMEN.

AT WEST BADEN, INDIANA.

JUNE 14TH, 1905.

For the above occasion we have made arrangements to run a *special Pullman Sleeping Car through* (without change) from *Rochester to West Baden, Indiana* at rate of \$4.00 per berth, and Room at \$14.00 via *New York Central; Lake Shore and Michigan Southern; Big Four Route and Monon Route.*

JUNE 12TH, 1905.

LEAVE ROCHESTER, 9:45 P. M.

ARRIVE WEST BADEN, INDIANA, 5:55 P. M., JUNE 13th

For rates, Sleeping Car reservations or any other information, apply to Mr. J. C. Kalbfleisch, D. P. A., N. Y. Central, Rochester, N. Y., or to Mr. Chas. L. Yates, care of NATIONAL NURSERYMAN, Room 205 Cox Building, Rochester, N. Y.

INSPECTION LAWS FOR WYOMING.

EDITOR NATIONAL NURSERYMAN:

I take the liberty of writing you for some information regarding the laws in your state for the protection of fruit growers against the introduction of contagious diseases and their suppression when introduced. Wyoming at the present time has no law covering this ground. The Fremont County Horticultural Society of which I am President is desirous of having some law upon our statute book which would afford us some protection against the introduction of contagious diseases and their suppression when introduced. So far this portion of Wyoming is entirely free from contagious diseases that cause so much trouble and expense to the fruit growers of other states. I would therefore thank you to give me such suggestions as your wide experience in this matter would suggest, that would enable our society to frame a law covering the grounds stated, and while I recognize that the laws of other States on this subject might not be entirely applicable here, they could probably be changed and modified so as to suit our conditions.

Lyons, Wyoming.

R. H. HARE.

It appears to me that there is less need for stringent inspection and other suppressive laws bearing upon insect and fungus diseases in Wyoming than many other places, for the following reasons:

San Jose scale does not appear to spread in the region north of the peach belt, or in sections where the severity of the climate prohibits peach culture. When peaches are not grown, of course peach yellows are eliminated. This takes out two of the most injurious enemies of fruit culture. There are, of course, many remaining. Among the most pernicious are codling moth and apple maggot, which may be ranked as first class pests. The question then arises whether it will pay to maintain inspection laws against these insects which, no doubt, are already introduced and established, and which can only be held in check by maintaining against them a continuous warfare. It is quite possible however that the apple maggot has not found its way into Wyoming because it is practically a New England pest thus far, and it may never reach you.

It seems to me, therefore, that considering the class of nursery stock, you are in the nature of things likely to deal with, the erection and maintenance of an elaborate system of inspection laws would be largely an unnecessary expense. This is my view of the question, and I may be in error; but it is worth while considering carefully before creating unnecessary barriers to the introduction of fruit trees into your state.

The simplest form of restrictive measure is the requirement of a certificate of inspection for each shipment of trees made into the state. The certificate has an educational and moral influence that is valuable.

I am asking our inspection department of New York to send you a copy of the inspection laws of the different states.

EDITOR.

PERSONALLY CONDUCTED TOURS TO

California, Colorado, Utah, Oregon, Washington, Arizona and Mexico Via the Wabash System, will move in February and March. For full information write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A. Buffalo, N. Y.

Doings of Societies.

A REGISTER OF HORTICULTURAL COUNCIL MEETINGS.

The months of January and February have witnessed the annual meetings of the leading horticultural organizations of Canada and the United States. In New York the State Fruit Growers' Association and the Western New York Horticultural Society met in January at Geneva and Rochester, respectively. Their meetings were most successful, and the officers of each society were re-elected. On February 16-17 a joint meeting of the State Fruit Growers' Association with the New York Horticultural Society, the Connecticut Pomological Society, and the New Jersey State Horticultural Society was held at the American Institute, New York City. This meeting was characterized by the presence on the program of men who figure largely as writers and lecturers. The New York Experiment Station was represented by its director and editor, the Cornell College of Agriculture by its director. We suppose that the orchardist had his innings in the time allotted to discussion, but he certainly was not in evidence on the program.

The Idaho Horticultural Association met at Boise, and laid plans for the securing from the state of an appropriation of \$20,000 for horticultural inspection and for the maintenance of a standing committee upon transportation. Officers elected, Freemont Wood, Boise, president, B. P. Shawhan, Payette, secretary, P. A. Devers, treasurer.

Arkansas horticulturists met for their twenty-fifth session at Rogers, January 24-26. Officers elected, John P. Logan, Siloam Springs, president, Ernest Walker, Fayetteville, secretary, James W. Vestal, treasurer.

Oklahoma horticulturists met late in January at Shawnee. A summer meeting is to be held at the same place the coming season. Professor O. M. Morris, Agricultural College, Stillwater, president, Pickens Watson, Shawnee, secretary.

Tennessee horticulturists swung into line recently and effected the organization of a state horticultural society. Professor C. A. Keffer of the State University was chosen president, and Mr. Martin of the State Geological Department, secretary.

During the past month the Fruit Growers of the Maritime Provinces of Canada have been occupied with their annual conventions. New Brunswick held its winter meeting on January 27. Much enthusiasm characterized the several sessions. President, J. C. Gilman, Fredericton, secretary, W. D. Albright, Sussex, treasurer, H. Wilmot, Oromocto.

The meeting of the Prince Edward Island Horticultural Society and the Nova Scotia Fruit Growers' Association have already been mentioned. The discussions were characterized by abundance of interest and great faith in the future of fruit growing in their respective provinces.

The American Carnation Society held a very successful meeting in Chicago January 25-26. It was agreed at this meeting to hold a co-operative exhibition in connection with the regular fall show, for the express purpose of displaying new and promising seedlings. Officers elected, president, Peter Fisher, Ellis, Mass., secretary, A. M. Herr, Lancaster, Pa., treasurer, F. J. Dorn, Jr., Lafayette, Indiana.

The American Cranberry Association held its annual meeting in Philadelphia on January 25. One of the important facts announced was the efficacy of copper sulphate as a preventive of cranberry scald. Officers elected, president, Rev. E. H. Durell, Woodbury, N. J., secretary-treasurer, John T. Irving, Elwood, N. J.

The Connecticut Pomological Society met in Hartford, on February 1-2. A successful session has been reported. Officers elected, president, A. G. Gully, Storrs, secretary, H. C. C. Miles, Milford.

The West Virginia Horticultural Society held its twelfth annual meeting at Charleston on January 26-27. Officers elected, Alex. Clohan Martinsburg, president, F. E. Brooks, Morgantown, secretary.

Texas Truck and Fruit Growers Association met at Galveston January 25. Officers, president, S. R. Dickson, Harris County, secretary-treasurer H. R. Thompson, Rush County.

The Nova Scotia Fruit Growers' Association met at Kentville, during the first week of December. An excellent meeting was realized owing to the excellent efforts of local talent and the assistance of the Division of Fruits of the Dominion Department of Agriculture.

The meeting of the Peninsula Horticultural Society held at the Seaford, Delaware, on January 17-18-19, was well attended, and the program most enthusiastically carried out. Among the leading speakers were officers of the Delaware experiment station, Professor Waugh of Amherst, Mass., and noted fruit growers from Maryland and Delaware.

Montana Horticultural Society met at Helena January 19-20-21 and held a successful meeting. Missoula was selected for the next place of meeting. Mr. C. F. Dallman, manager of the Missoula Nursery Co., was elected president and Mr. Verdie Spurgeon of Missoula, secretary.

AMERICAN BREEDERS' ASSOCIATION.

The second annual meeting of this association was held at the College of Agriculture, Champagne, Illinois, February 1-3. The Association has divided itself into sections. These sections, however, did not meet concurrently, but consecutively. Among the speakers in the plant section were T. V. Munson, Dennison, Tex., Breeding of Grapes, C. W. Ward, Queens, N. Y., Carnation Breeding, W. M. Hays, Assistant Secretary of Agriculture, Breeding of a Hardy Alfalfa, Dr. George T. Moore, U. S. Department of Agriculture, Breeding Nitrogen Fixing Clover Bacteria. The reports of this society are available to members.

WISCONSIN HORTICULTURISTS MEET.

The writer was sent to Madison as a delegate from the Minnesota Horticultural Society. The Wisconsin people had one of the largest and most enthusiastic conventions in their history, their program covering four days and ten sessions—interest and good attendance being maintained throughout. A fruit display of over 600 plates was one of the interesting features. Wisconsin is fast adding to her reputation as an apple state and growers from the lake district brought fine specimens of many "old line" varieties. Cranberry culture is one of the distinctive features of Wisconsin horticulture, with the strawberry crowding a close second. An interesting activity of this Society is the maintenance of three experimental orchards in different parts of the state, on account of the wide variation in soil and climate. The burning of the Wisconsin Capitol last year destroyed the entire horticultural library and much work has resulted in the collection of a new one. In a lively discussion on spraying, the dust spray as a fungicide was denounced. The Wisconsin Experimental Station, through the efforts of the late Professor Goff, has assumed a leading position in the study of the native plum and much encouragement is offered to champions of this fruit. The Jewell Nursery Company's cash prize of \$1,000 for a new hardy plum was first made public at this meeting and aroused much interest. Professor Sandsten said there was no reason why native and Japan or Domestica varieties could not be crossed in the interests of size, quality and hardiness. The annual banquet, with over one hundred covers, was a pronounced success, and brought the convention to a close with harmony prevailing. The political situation at Madison was particularly interesting at this time, Governor La Follette having been just elected to the U. S. Senate, and the discussions in the corridors lacked nothing in vigor.

Lake City, Minnesota.

ROY UNDERWOOD.

JAMAICA STORM STRICKEN.

Two years ago the fruit interests of Jamaica were sorely injured by a destructive tornado. Telegraphic despatches inform us that another storm has recently passed over the Island inflicting much damage on the banana plantations. The loss to banana growers is estimated at between one hundred and fifty and two hundred thousand dollars. A large share of this falls upon the United Fruit Company.

ANOTHER BIG GEORGIA ORCHARD.

Richard A. Almand and Gabriel Toombs, two of Washington's most enterprising and substantial citizens, have just purchased of J. M. Gilbert, a tract of land about two miles south of Washington, 500 acres, and are preparing to engage extensively in peach raising. Fifteen thousand Elberta trees will be set out this fall, and will be followed by an additional 15,000 next fall. The soil in this section is admirably suited for peach culture.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., MARCH, 1905.

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President, E. W. Kirkpatrick, McKinney, Tex.; vice-president, C. L. Watrous, Des Moines, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.
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Programme—Harlan P. Kelsey, Boston; Herbert S. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.
Publicity—Ralph T. Olcott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.
Exhibits—R. C. Berckmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.
To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

AMERICAN NURSERYMEN'S PROTECTIVE ASSOCIATION—President, R. C. Berckmans, Augusta, Ga.; vice-president, A. L. Brooke, secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.
NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y. Meets annually in January.
WESTERN WHOLESALE NURSERYMEN'S ASSOCIATION—President, F. H. Stannard, Ottawa, Kan.; secretary, E. J. Holman, Leavenworth, Kan. Meets in July and December at Kansas City, Mo.
SOUTHERN NURSERYMEN'S ASSOCIATION—President, W. T. Hood, Richmond, Va.; vice-president, Henry Chase, Huntsville, Ala.; secretary, J. C. Hale, Winchester, Tenn. Meets at Asheville, N. C., in August, 1904.
SOUTHWESTERN NURSERYMEN'S ASSOCIATION—President, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A. Taylor, Wynnewood, Ind. Terr.
TEXAS NURSERYMEN'S ASSOCIATION—President, E. M. Kirkpatrick, McKinney, Tex.; secretary, John S. Kerr, Sherman, Tex.
PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.
PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.
NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

As the time for the June meeting approaches, members should bear in mind their obligations to the Association and its officers. Secretary Seager is now preparing the membership and badge book. It will greatly

THE BADGE BOOK.

facilitate his labors if advertisements and fees are promptly forwarded. The work of getting out this book is considerable, and its quality can be much improved, if the Secretary is allowed sufficient time to make it up to his own satisfaction. With the West Baden convention, the thirtieth year in the work of our important Association will be rounded out. We ought to make this year a banner period in the history of our organization. Let the members considerably assist the Secretary in preparing the badge book in good time, and making it as attractive and useful as possible.

It is almost impossible to pick up an agricultural or horticultural paper these days without finding a record of the oppressions and impositions of the great transportation companies. In the issue of the "Com-

THE BURNING QUESTION.

moner" for January 20th there is a melancholy review of the destruction of industry after industry by unfavorable discrimination, or excessive freight rates. In Pennsylvania, suit has been brought against the Pennsylvania Railroad for some \$50,000 damages, by firms who have failed owing to alleged freight rate discrimination in recent years.

A despatch from Atlanta under date of January 7, says that fifteen years ago there were between twenty-five and thirty wholesale grocers in Atlanta. Today, although the city has grown in population and in wealth, there are only thirteen wholesale grocery firms in the city. Their suspension is said to have been due in nearly every instance to discriminating freight rates, and specific instances are cited. Records of failures due to the same cause come from Emporia, Kansas; Lincoln, Nebraska; Buffalo, and Baltimore, from Columbus, Ohio; from Fort Wayne, Indiana; San José, California; and Mobile, Alabama.

If all the apparently valid cases of this kind were recorded it would make an exceedingly extended list. Fruit-growers and tree-growers are both vitally interested, tree-growers particularly, for the reason that their goods are bulky. Public sentiment must back the co-operative action of manufacturing and rural organizations. But public sentiment must first be aroused. It is being awakened, but very slowly. The hands of the transportation committee of the Association should be strengthened by the moral support of every member of the society. Co-operation, in this instance, should be the watchword.

One of the best and most convincing bits of evidence bearing upon the substantial progress of plant breeding has been recently presented by the action of the Carnegie Institute in providing the noted plant breeder, Burbank, with an endowment which will enable him to carry on his investigations and studies in the future without the necessity of watching ceaselessly the financial side of the question. Mr. Burbank has made many important additions

PLANT BREEDING.

to the lists of our fruits and flowers. It is exceedingly difficult for a man to make plant breeding financially successful, and that is one of the reasons why so few individuals have entered the field. Now that the mere money considerations have been disposed of by the action of the Carnegie Institute, we may look for renewed vigor and for studies somewhat aside from channels which might be expected to prove pecuniarily advantageous. It is cheering to all those who are interested in the amelioration and improvement of plants to realize that this great scientific institution should thus recognize the work of an individual, and one whose leanings and inclinations are so closely allied to the man who multiplies the individual, as well as the man who increases the number of varieties of useful plants. We congratulate the Carnegie Institute and our friend Burbank.

We are delighted to notice that an energetic member of the program committee has secured the services of the eminent bacteriologist, Dr. Moore of the Department of Agriculture, Washington, for our next annual meeting. This is the gentleman whose work has been given much publicity through Mr. Grosvenor's fascinating article which appeared in the *Century* for October under the above caption. No single advance in agriculture in recent years has attracted so much attention from the men who till the soil, as well as from those who are interested only indirectly, as the possibility of adding fertility to the land by a process of inoculation so simple as to fill one with astonishment. The whole work is based upon the principle that there are in the soil and co-operating with the plant beneficial microbic agents; that in some soils these agents are wanting; that some plants do not thrive unless they are present; that by means of their co-operation the most expensive element of plant food can be abstracted from the atmosphere and given directly to the plant, and through the plant indirectly to the soil.

Coupled with this, is the fact that each plant appears to have its special variety of microbic helper. Therefore, if a farmer were growing Soy beans, he would need one kind of bacteria, if alfalfa another, if vetch still another. The important part of Dr. Moore's work has been in the breeding of more useful kinds of bacteria than were heretofore possessed; the developing of kinds which will steal more nitrogen from the atmosphere than the forms nature provided us with. We congratulate the program committee on providing such an exceedingly practical and interesting topic, and for no other reason than this, we urge upon our members a full attendance at the West Baden meeting in June.

A strong movement has been going on for some time in the eastern part of Long Island, having for its purpose the suppression of San José scale. The work is well organized, and as soon as the weather moderates the aggressive campaign will commence. It is to be co-operative in a measure, being supported by the persons whose trees and shrubs are being injured. The work will begin at Glen Cove and in the vicinity of Locust Valley. It will be superintended by Elwood V. Titus,

INOCULATING THE GROUND.

A CAMPAIGN AGAINST SAN JOSE SCALE.

assisted by the inspectors of the Department of Agriculture at Albany. Three power sprayers have been purchased, and a co-operative war will be instituted on a very extensive scale throughout the season.

It is probable that an amendment to the present inspection act will be offered, extending the powers of the Commissioner of Agriculture in the matter of suppressing noxious insects.

There appears to be no doubt that the citrus industry in Florida has again been hard hit. If we were to accept the telegraphic despatches as accurately describing the situation, we would be led to believe that the disaster of this winter fully equalled the ruinous one of 1896. Later experience will probably develop the fact that the injury has not been so severe as during that killing winter. Nevertheless, the vegetable business was completely paralyzed for the time being. Tomato growers have had nothing to do but start over again. Their injury is one which can be repaired in a comparatively short time, and the injury to the orange crop of the current year is as nothing compared to the injury which the trees may have received. That it was no ordinary frost, but a real freeze, is evidenced by the statement of an orange grower in the northern part of the orange belt, that "not only were the oranges on the trees frozen, but the fruit in the packing houses was also frozen." It was fortunate for the growers that about two-thirds of their crop was marketed at the time. This ensures cash to meet immediate demands, but the problem is, to what extent were the trees injured? Probably this cannot be completely answered before the first of March.

THE SOUTHERN FREEZE.

"It's an ill wind," etc., for now that the Florida crop has been suddenly lessened in quantity, the Californians are hopeful that the remainder of their crop can be harvested with much larger profit. More than four hundred cars of citrous fruit were sent from southern California to eastern points between the first and fourth of February.

Every now and then, a winter of unusual severity sweeps over the country and leaves behind it a trail of dead and dying fruit trees. Such a winter was that of 1898-1899, and again 1903-1904. The former winter was characterized by an excessive amount of root killing. All over the Northwestern and Mississippi Valley States, nursery stock and orchard trees suffered from the destruction of their roots. This was not a new and unusual form of injury. It was but a repetition of former happenings. It seems to be a fact that the French and Vermont apple stocks are not proof against the severe cold of the middle northwest, coming on unprotected ground. The tops of hardier varieties such as Duchess and Wealthy often escape injury, while the roots less resistant to cold, are destroyed.

THE SIBERIAN CRAB-APPLE AS A HARDY DWARF STOCK.

With a view of discovering a remedy for this weakness, the horticulturists of the Northwestern States have been carefully investigating the subject. Prominent among them, are Professor N. E. Hansen, of the South Dakota Experiment Station and Professor S. B. Green of the Minnesota Agricultural College. Professor Hansen who has travelled in Russia extensively, discovered that the injury by root killing was

avoided or at least prevented to a considerable extent, by using as apple stock, the native Siberian Crab-apple of Northern Japan and Siberia. (*Pyrus baccata*). This is to be distinguished from the type of Siberian Crab recognized in the United States under the name of *Pyrus prunifolia*, by the fact that the calyx is deciduous. That is to say, it is thrown off about the time of the ripening of the fruit. There are many varieties of this berry crab, *P. baccata*. They all seem to possess the quality of great hardiness.

Professor Hansen has found that the stock is resistant to the severe cold of South Dakota, and both he and Professor Green are experimenting with this stock in an extensive way. A large number of seedlings have been grown and distributed to interested nurserymen and fruit growers.

It is a remarkable thing that this form of apple should be hardier in the Mississippi Valley than the native crab, *Pyrus Ioensis*, which is found distributed throughout the region.

One of the characteristic influences of this stock upon the cion, is that it dwarfs it considerably. Apart then from the quality of increasing hardiness, is to be considered the possibility of it proving a desirable dwarf stock for the colder regions of this country where the Doucin and Paradise stocks would be unsafe. Professor Hansen recommends budding instead of root grafting, as the best method of working this stock.

SOIL INOCULATION FOR LEGUMES.

The work of George T. Moore of the Laboratory of Plant Industry in connection with the development of useful varieties of bacteria is well known. The first publication on this subject from the author of this important work comes to us under number of Bulletin 71. It contains the reports of twenty-five hundred farmers who have been experimenting with bacteria in connection with the growing of different leguminous crops. Over one thousand farmers reported on the use of alfalfa bacteria, and of these, five hundred and twenty-two reported favorably. Five hundred used red clover bacteria, and three hundred reported favorably. Two hundred and ninety used cowpea bacteria, and of these, one hundred and forty-eight found that it definitely increased the crop. Among other crops experimented with were garden pea, common bean, soy bean, hairy vetch, crimson clover, field pea, and velvet bean. On the whole the report gives very convincing evidence in favor of the use of nitrogen collecting bacteria.

Mary had an autocart,
She ran it through the briars,
And after that, ere it would go,
She had to pump the tires.

She pumped them up too tight one day,
'Twas more than they could stand;
They burst and blew poor Mary to
A better, happier land.

—Rural New Yorker.

COLONIST RATES.

To Pacific Coast Points, Via WABASH RAILROAD. On sale March 1st. to May 15th inclusive, \$42.50 to all Pacific Coast points from Buffalo. Correspondingly low rates to points in Utah, Montana, Idaho, Washington, Oregon and California. Ask your Local Agent or write, R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A. 287 Main Street, Buffalo, N. Y.

THE READING NURSERY, MASS.

In an attractive announcement circular issued by a Mr. J. Woodward Manning, we learn that he has purchased the good-will, rights, titles, and the nursery stock of the Reading Nursery, Reading, Massachusetts, which was established in 1854 by his father, the late Jacob W. Manning. This nursery has an enviable record for integrity and straightforward business principles. Mr. Manning was associated with his father in business for fifteen years previous to the organization of a partnership with his brother, Warren H., for the purpose of conducting a landscape architects' business in Boston. During this time he made a study of plants adapted to New England conditions, and gathered at Reading an unusually full collection of rare trees, shrubs and fruits. The collection of perennial plants was also more than ordinarily replete, and was known to botanists the country over. The garden Herbaria of several agricultural colleges were amplified in considerable measure by the generosity of the owner of the Reading nurseries. We offer Mr. Manning our congratulations and best wishes for the success of the Reading nurseries.

FREIGHT RATE BILL.

After much discussion a bill to regulate freight rates has been passed by the House. It is at present hung up in the Senate. The following summary presents the salient features of this bill:

"The interstate Commerce Commission shall have the right to name a reasonable rate in place of one found to be unjust and unreasonable, the same to become operative within thirty days. There shall be no suspension of said rate, except upon reversal by the Court of Review.

"A Court of Transportation is established, composed of five Circuit Judges selected by the President, which shall have the power to review orders of the Interstate Commerce Commission on appeal.

"The Interstate Commerce Commission is increased from 5 to 7 members, no more than 4 of whom shall belong to the same political party, and their salaries are increased from \$7,500 to \$10,000 a year.

"Refusal to obey an order of the Interstate Commerce Commission respecting rates shall be punished by a fine of \$5,000 for each day of such refusal.

"The President shall appoint five additional Circuit Judges to take the place of those appointed on the Court of Transportation.

"The Court of Transportation shall hold four sessions a year, beginning on the first Tuesday of March, June, September and December.

"Appeals may be taken from the Court of Transportation to the Supreme Court of the United States."

STORED APPLES.

It appears that there is a greater quantity of apples in store houses this year than ever before. From the best statements secured about February first there were 2,400,000 barrels in various store houses in the United States. This was 200,000 more than at the same period in 1904. The increase is largely in the United States. Ontario has a slightly larger quantity in store, but Nova Scotia has some 20,000 barrels less.

While this quantity is large, it is gratifying to know that the keeping quality is unusually good. In the western states, Colorado is beginning to show up as an apple producing state. This state has nearly twelve times more apples in store this year than last year. West Virginia has also produced greatly in excess of 1904. It was estimated that there were in common storage in New York about February 1, fully 500,000 barrels of apples.

It would appear as though apple handlers would be obliged to move their stock before long, especially the stock which is in common storage.

A FEW POINTS ON FUMIGATION.

The laws of many states and territories demand fumigation of nursery stock before it is delivered to the consignee; all of them would like to see all stock fumigated. In fact in many instances it would save nurserymen a great deal of trouble and delay if a uniform system of treating stock existed.

Now what is the actual value of fumigation with hydrocyanic acid gas as a precautionary measure against the introduction of San José Scale and other nursery pests into the orchards?

Mr. W. Newell, the State Entomologist of Georgia, states his view on the question as follows:

"It should not be understood, that fumigation will in all cases eradicate San José scale, but when the work is properly done it appears to afford the best protection against this pest that has yet been devised. Impure chemicals, inaccurate scales, undetected leaks in the fumigating house or too close packing of the stock may defeat the object of fumigation and since one can rarely be sure that his fumigating arrangements are working perfectly, it cannot be said that fumigation affords absolute protection. However, results of experiments conducted by this office show that infested trees can, in many cases, be entirely freed from scale by this process. The object of fumigating all nursery stock, after it has passed inspection, is to eradicate (if possible) any slight case of infestation which might be over-looked by an inspector. In this way two safeguards are provided the orchardist, who buys the stock, against the introduction of scale into his orchard, whereas in the case of inspection alone, or of fumigation alone, but one safeguard is provided him."

In the case of any section where San José scale exists, inspection alone, or fumigation alone is not a sufficient guarantee. Mr. Newell well points out the causes responsible for poor results. The chief requirement is a perfectly tight house, shed or box and for its construction all such precautions as matched lumber, painting of cracks and joints and additional paper lining should be faithfully observed. If the stock is fumigated immediately when it comes from the field the danger of tight-bundling thus affording protection from the fumes by shutting off circulation, may be largely avoided. We know as yet far too little about the physiological influences of the hydrocyanic acid gas upon plant life to give the reasons for various phenomena, but by way of practice we have found that certain doses are best adapted for certain lines of stock. The standard formula is easily remembered as follows—1—2—4=

1. 1 ounce of cyanide of potassium (dry weight.)
- 2 ounces of Sulphuric acid (fluid weight.)
- 4 ounces of water (fluid weight.)

for every 100 cubic feet of inside measure.

The following formula is used for *dormant* trees, apple, pear, plum, hardy forest trees and one year old peaches.

2. $\frac{2}{3}$ ounce of cyanide of potassium.
- $1\frac{1}{2}$ ounces of sulphuric acid.
- 3 ounces of water.

for every 100 cubic feet of inside space, constitutes the charge for dormant roses, buds, scions, and June budded stock.

3. $\frac{3}{4}$ ounce of cyanide of potassium.
- $1\frac{1}{2}$ ounces of Sulphuric acid.
- $2\frac{1}{2}$ ounces of water.

is the formula for strawberry plants.

The exposure should be in case of

1. } 40 minutes.
2. }
3. 20 minutes.

In case of tender material it is well to shorten the exposure from 40 to 30 minutes.

The mixing of the chemicals should be done in a wide mouth earthen jar. A glass graduated measure should be employed for the measuring of the Sulphuric acid and of the water. It is absolutely necessary that the best Sulphuric acid be obtained, (spec. grav. 1.83.) Always pour the acid into the water, not water into acid. If a man has only one fumigating house it is well to calculate the space and then to put up the Cyanide in doses as required for his peculiar line of stock. This saves much time at the moment of operation, avoids errors in hurried weighing and subsequent loss by injured trees. When buying the cyanide one should demand pure material (98-99%) as the figures have been computed for this. The impure stuff is unreliable and should be avoided. While other methods are used it is best to drop the cyanide (wrapped in paper or cloth to retard the first moment of gas generation) into the diluted acid, instead of applying the acid last.

Your experiment station will gladly figure out for you the cubic contents of any fumigating house, when inner measurements are given, if you care to apply.

It is not wise to fumigate any stock when it is wet as it has been clearly demonstrated that trees will be injured in that condition.

Man learns more by mistakes than in any other way. Therefore I think it not amiss to repeat a few of the "Don'ts" which Professor Johnson gives in his book on "Fumigation Methods."

1. "Never fumigate a tree on which there is known to be San José scale. Burn it.
2. Never fumigate trees, especially peach, a second time.
3. Never fumigate trees after they are bundled or boxed.
4. Never fumigate trees when they are wet.
5. Do not fumigate conifers.
6. Never leave the cyanide where children can reach it.
7. Never leave the cyanide exposed to air. It will absorb moisture and be ruined.
8. Never allow anybody to enter a fumigating room under ten to fifteen minutes after the door and ventilators are opened.
9. Never put a new charge into a jar containing the old residue.
10. Never lose an opportunity to caution persons about the danger attending the inhalation of this gas."

The most perfect system for rapid ventilation is none too good.

When ready to build a fumigating house you will find it advisable to consult with your state entomologist who is expected to have the latest information obtainable.

Cornell University.

C. BÜES.

THE PROGRESS OF SPRAYING.

Time was when spraying was an experiment. This stage has long since been passed. It is now an accepted practice, as tillage, pruning, and fertilizing are. It may not be absolutely necessary to spray every year, but the farmer, fruit grower and nurseryman should be prepared to spray every year. The true way to look upon spraying is to regard it in the light of an insurance. We spray to ensure our crops against injury from parasitic disease and insect enemy. The fruit grower cannot foretell the advent of these enemies, but he should guard against them, and this is done by spraying.

Success in spraying is dependent upon the exercise of judgment, and upon the thoroughness and timeliness of the application. The sprayer should know what he sprays for. He should recognize the enemy and know what remedy is most effective, and when it should be applied. Promptness, thoroughness, and persistency are the watchwords and the price of success.

Practically every fruit growing state in the Union has, through its experiment station, published rules and formulae for spraying. These are all available to the respective resi-

dents of the states. In addition, the Department of Agriculture has published a vast amount of literature on this subject. This is also available to persons who are interested.

In this issue we are offering the nurserymen a good deal of information on inspection laws, on spraying formulas, and upon spraying machinery. The formulas offered below are the leading ones now recommended by those who have studied the subject most carefully.

One of the striking advances in spraying is the introduction and increasing popularity of the sulphur washes. Directions are given for the preparation of these. The newer spraying remedies are also discussed in the light of such experience as we have had up to date.

As to pumps: We believe in plenty of power. The best spray is a fine misty vaporous spray. This is secured by high pressure. For areas of any considerable extent it pays to buy some form of a power pump. Consult our advertising pages for the most desirable type. Buy a well made pump with good brass or non-corrosible working parts. It is economy in the long run.

THE LEADING FUNGICIDES AND INSECTICIDES.

The following formulas for spraying are adapted from Bulletin 217, Cornell University.

FOR INSECTS THAT CHEW.

Paris Green.

Paris Green.....	1 pound
Water.....	75-250 gallons

If this mixture is to be used upon fruit trees 1 pound of quick lime should be added. Repeated applications will injure most foliage, unless the lime is used. *Paris green and Bordeaux mixture are applied together with perfect safety.* Use at the rate of 4 to 12 ounces of the arsenite to 50 gallons of the mixture. It is sometimes used as strong as 1 pound to 50 gallons, but this is usually unsafe and generally unnecessary. The action of neither is weakened, and the Paris green loses its caustic properties. For insects that chew.

White Arsenic.

White arsenic being cheaper and of more constant strength than Paris green, is becoming increasingly popular as an insecticide. It may be safely used with Bordeaux mixture, or separately if directions as to its preparation are carefully followed; if, however, these are neglected injury to foliage will result. The following methods of preparation will be found to be satisfactory. It is unwise to use white arsenic without soda or lime. Methods number one and two are recommended as the least likely to cause injury.

1. *Arsenite of Soda for Bordeaux Mixture.*—To a solution of four pounds salsoda crystals in one gallon of water, add one pound of white arsenic and boil until dissolved. Add water to replace any boiled away, so that one gallon of stock solution of arsenic of soda is the result. Use one pint of this stock solution to fifty gallons of Bordeaux.

II. *Arsenite of Lime.*—(a) If used alone (not in connection with Bordeaux) white arsenic should be prepared thus:—To a solution of one pound of salsoda crystals in a gallon of water, add one pound of white arsenic and boil until dissolved. Then add two pounds of fresh slaked lime and boil twenty minutes. Add water to make two gallons of stock solution. Use one quart of this stock solution to fifty gallons of water.

(b) Boil one pound of white arsenic in two gallons of water for one half hour and use the solution while hot to slake two pounds of good, fresh, quick-lime. Add water to make two gallons of stock solution and use one quart of this to fifty gallons of water or Bordeaux mixture.

Arsenate of Lead or "Disparene" can be applied in large quantities without injury to the foliage; hence it is very useful against beetles and similar insects that are hard to poison. It also adheres to the foliage a

long time. Use in strengths varying from 1 to 4 pounds to 50 gallons of water. Ready for use as soon as the paste is stirred in the water.

FOR INSECTS THAT SUCK.

Kerosene Emulsion.

Hard, soft or whale oil soap.....	½ pound
Boiling soft water.....	1 gallon
Kerosene.....	2 gallons

Dissolve the soap in the water, add the kerosene, and churn with a pump for 5 to 10 minutes. Dilute 4 to 10 times before applying. Use strong emulsion for all scale insects. For such insects as plant-lice, mealy-bugs, red spider, thrips, weaker preparations will prove effective. Cabbage-worms, currant-worms and all insects which have soft bodies, can also be successfully treated. It is advisable to make the emulsion shortly before it is used. For San José scale it is recommended to use 1 pound of whale oil soap and dilute in proportion to one quart to six of water. Especially effective in summer to kill the young and tender lice.

Tobacco Water.

This solution may be prepared by placing tobacco stems in a water-tight vessel, and then covering them with hot water. Allow to stand several hours, dilute the liquor from 3 to 5 times and apply. For soft bodied insects.

Whale Oil Soap.

Dissolve in hot water if wanted quickly. For use on dormant trees. For San José scale dilute 2 pounds to 1 gallon of water; for summer use on scale or aphids 1 pound to 5 to 7 gallons of water.

FOR FUNGOUS DISEASES.

Normal or 1.6 Per Cent. Bordeaux Mixture.

Copper sulfate (Blue vitriol).....	6 pounds
Quick-lime (Good stone lime).....	4 pounds
Water.....	50 gallons

For peaches and Japanese plums, an extra amount of lime should be added, and more water (60 to 70 gallons) should be used.

Six pounds of sulfate of copper dissolved in 50 gallons of water, when applied at the proper time, will prevent the growth of fungi. However, if applied in this form, the solution will burn the foliage. Four pounds of quick-lime in six pounds of copper will neutralize the caustic action. When sulfate of copper and lime are added in this proportion, the compound is Bordeaux mixture.

Weighing of copper and lime at time of mixing is very inconvenient. Bordeaux mixture is best when used within a few hours after being mixed. Therefore a stock mixture of Bordeaux is impracticable. It is, however, practicable to have stock preparations of sulfate of copper and of lime ready for mixing when required.

The lime should be fresh quick-lime, and when slaked must always be covered with water to exclude the air. In this manner a "stock" mixture of lime can be kept all summer unimpaired.

Sulfate of copper can be dissolved in water and held in solution until needed. One gallon of water will hold in solution two pounds of copper sulfate. To accomplish this the sulfate should be suspended at the surface of the water in a bag. The water most loaded with copper will sink to the bottom, and the water least loaded will rise to the surface. If fifty pounds of sulfate are suspended in twenty-five gallons of water on an evening, each gallon of water, will when stirred the next morning, hold two pounds of sulfate. This will form a stock solution of copper sulfate.

If three gallons of this solution are put in the spray barrel, it is equivalent to six pounds of copper. Now fill the spray barrel half full of water before adding any lime. This is important for if the lime is added to so strong a solution of sulfate of copper, a curdling process will follow. Stir the water in the lime barrel so as to make a dilute milk of lime, but never allow it to be dense enough to be of a creamy thickness. If of the latter condition, lumps of lime will clog the spray nozzle. Continue to add to the mixture this milk of lime so long as drops of ferrocyanide of potassium (yellow prussiate of potash) applied to the Bordeaux mixture continue to change from yellow to a brown color. When no change of color is shown, add another pail of milk of lime to make the necessary amount of lime a sure thing. A considerable excess of lime does no harm. The barrel can now be filled with water, and the Bordeaux mixture is ready for use. Add an arsenite for insects that chew.

FOR SCALE INSECTS AND FUNGUS DISEASES.

Lime, Sulfur and Salt Wash.

Lime.....15 pounds
Sulfur.....15 pounds
Salt (This does not appear to be necessary though generally recommended).....15 pounds
Water sufficient to bring the boiled product up to 50 gallons.

Preparation: The lime and sulfur must be boiled or steamed. The latter method is liked best by those who have tested both. Proceed as follows: Provide yourself with eight barrels. Put in quarter the full amount of sulfur and fresh stone lime in four barrels with a proportionate amount of water. Turn the steam under a pressure of 80 to 100 pounds (15 to 20 pounds pressure works well) into these four barrels. When the water has boiled for a few minutes in these barrels turn off the steam. It may then be turned on to four more barrels which have been prepared in the same manner as the first set. The full amount of lime and sulfur is then added to the first set of barrels slowly enough to prevent boiling over by the heat generated by the slaking lime. When the lime is all slaked, turn on the steam again for two or three hours or till the mixture is thoroughly cooked. It is quite possible, to feed each barrel during the boiling process with a small stream of water, which will gradually fill the barrel without preventing the boiling. The mixture becomes quite thin during the boiling process, and when finished is of a deep orange color.

The mixture may also be made by boiling in iron kettles. Heat the water before adding the lime and sulfur. All the sulfur should be thoroughly reduced. Pour into the sprayer through a strainer, and apply to the trees while warm. This is to be used while trees are dormant. This mixture appears to have considerable value as a fungicide. It prevents leaf curl and is also valuable as a preventive of apple and pear scab. A lime-sulphur-caustic soda wash has been tested by experiment stations but its efficiency is not equal to the above.

SPECIAL HOME SEEKERS EXCURSIONS VIA THE WABASH R. R.

March 7th and 21st the Wabash will sell special home seekers tickets to many points in Texas, Louisiana, Kansas, Oklahoma and Indian Territory at very low rates for the round trip. For full particulars, time cards, etc. call on your Local Ticket Agent, or write

James Gass,
N. Y. S. P. A.

R. F. KELLEY,
G. A. P. D.

287 Main Street, Buffalo, N. Y..

RAILWAY FACILITIES TO WEST BADEN SPRINGS.

Nurserymen will soon begin to study ways and means of attending the 30th annual convention of the American Association of Nurserymen, which occurs at West Baden Springs on the 14th of June next. The New York Central lines and Monon Route will give a through car service from Rochester, N. Y., to West Baden Springs. The special train will leave Rochester on June 12th at 9:45 p. m., arriving at West Baden 5:55 p. m., June 13th. The fare is 1 ½ for the round trip from Rochester. Price of berths from Rochester through to West Baden is \$4.00. State rooms can be secured for \$14.00. The train will go by way of Green Castle, Ind., where it will arrive at 12:44 p. m., on the 13th, leaving at 2:28 p. m. It is very gratifying to know that such excellent provisions for the comfort and convenience of those who attend the convention are available. This should assure a large attendance from points in Central and Western New York.

NEW INSECTICIDES AND FUNGICIDES.

Every year sees a considerable addition to the list of insect and plant disease nostrums and remedies. The New Jersey Experiment Station has made a special examination of these newer mixtures, and presents substantially the following report in regard to their efficacy:

Salimene; a powder scale killer, tried on scale infected fruit trees without perceptible result.

Horticultural compound; for sucking insects, did not prove effective against half grown or breeding forms.

Pyrol tree and plant spray; for scale and sucking insects. This proved absolutely ineffective against scale larvæ.

Rose leaf extract; scale remedy. No value for scale; effective against plant lice and leaf hoppers. Use one pound in five gallons of water.

Crude petroleum for scale and sucking insects. Recommended by Prof. Smith as a dormant spray in undiluted form for pear trees affected by a scale. For other fruit trees 25% mechanical mixtures are recommended.

Kill-O-Scale; a patented mixture of kerosene, resin, and oil for scale insects. Smith found it effective at the rate of one part to twenty parts of water. He pronounces it the best of the scale killers now on the market, but the price of \$1.25 per gallon makes its use prohibitive.

Caustic soda; 1 ½ pounds in two gallons of water proved ineffective for scale insects.

Lime, sulphur, and caustic soda combined did not give Mr. Smith satisfactory results on apple trees. Better results were secured on plum and peach.

Potassium sulfide, at the rate of one pound in five gallons of water is said to be quite effective against San José scale. It cannot be used during the growing period. As a dormant wash it has considerable value.

Take it all round, the lime, sulphur and salt prepared by boiling, (formula opposite) appears to be the most reliable remedy against San José scale. It is quite probable that more than one application will be required, particularly during spring seasons of heavy rainfall. In the case of infestations discovered during spring or summer, dilute whale-oil soap can be used, but this should not be applied in full strength, using one pound to two gallons, except during the absolutely dormant period.

The Washington's birthday issue of The Youth's Companion is a patriotic number. President Henry S. Pritchett of the Massachusetts Institute of Technology contributes a short paper on Washington and Lincoln; Emile Ollivier, French statesman, compares and contrasts the offices of President of the United States and President of the French; and Esther Harlan has a good story of the George Junior Republic. There is besides a humorous tale of the back woods, by C. G. D. Roberts, "From Buck to Bear and Back," and the first installment of a serial story of great promise, "The Second Violin," by Grace S. Richmond.

ROBT. C. UECKE. Thanks for court plaster; you know what we nursery men are apt to need during the packing season. I cannot get along without NATIONAL NURSERYMAN. Enclosed find \$1.00 for paper the ensuing year.

The NATIONAL NURSERYMAN'S Tabulation of the Regulations Governing the Shipment of Nursery Stock

States and Territories.	No Law.	Fumigation required.	Must file a Duplicate Certificate.	Upon Receipt of Nursery Stock inform:	Special Laws.	Certificates are Required and Honored.	Obtain Information from:
ALABAMA			File Certificate.		A signed copy of certificate must be filed. Send money order in advance for official tags; 65c. first 100, 35c. each additional 100, \$2.25 per 1000.	Yes.	State Horticulturist, Auburn, Ala.
ARIZONA	No Law.						Director of Experiment Station Tucson, Ariz.
ARKANSAS					Transportation company must not deliver goods until certificate is furnished.	Yes.	State Entomologist, Fayetteville, Ark.
CALIFORNIA		Will be disinfected at destination as well as inspected.		Deputy Commissioner of Horticulture, Ferry Bldg., San Francisco.	Each package must bear name and address of consignor and consignee. No apricot, peach or nectarine trees or cuttings, grafts, buds, etc., will be admitted from districts where Rosette or Yellows exist.	No.	Deputy Commissioner of Horticulture, Ferry Bldg., San Francisco, Cal.
COLORADO				State Board of Horticulture, Denver, Col.	All shipments are subject to inspection by county inspectors.	No.	State Board of Horticulture, Denver, Col.
CONNECTICUT		Yes.			Treatment is at the discretion of the State Entomologist.	Inspection and Fumigation Certificate required.*	State Entomologist, New Haven, Conn.
DELAWARE		Yes.			Inspection must not have been made before August 1st; Certificate dated September 1st.	Inspection and Fumigation Certificate required.*	State Entomologist, Dover, Del.
FLORIDA	No Law.				Certificates to Florida nurserymen are issued by the State Entomologist.		State Entomologist, Lake City, Fla.
GEORGIA		Yes.	File Certificate with Entomologist and secure tags.		Fumigation must be done according to instructions furnished from Georgia.	Official Georgia tag and inspection Certificate signed by the nurseryman.	State Entomologist, Atlanta, Ga.
IDAHO		Yes.			All nurserymen doing business in this State are required to furnish a surety bond in the sum of \$1,000—conditioned upon the faithful compliance with the law. Requirements are: 1. All representatives must have a certificate showing that their firm or firms have given bonds; 2. That the stock being shipped in has been examined by a duly authorized officer, and a certificate of inspection attached to each package or shipment; 3. All trees, shrubs, plants, etc., must be true to name; 4. Any pit fruit coming from sections where peach yellows are known to exist is prohibited from entering. Shipments from sections where oyster shell bark louse or pear blight exist prohibited.	Inspection and Fumigation Certificate required.*	State Horticultural Inspector, Boise, Ida.
ILLINOIS					State Entomologist inspects nurseries in the State.	Yes.	State Entomologist, Urbana, Ill.
INDIANA					State nurseries shall be inspected at least once a year. Every package shipped into the State should be labeled with the names of the consignor and consignee and a certificate of a State or Government inspector of current year's date.	Yes.	State Entomologist, LaFayette, Ind.
IOWA					Iowa nurseries are inspected at the owner's request; shipment without inspection prohibited.	Yes.	State Entomologist, Ames, Ia.
KANSAS	No Law.						State Nursery Inspector, Manhattan, Kan.
KENTUCKY			File copy of Certificate to avoid delay.			Certificate of Inspection and list of contents.	State Entomologist, Lexington, Ky.
LOUISIANA					The Entomologist has power to require fumigation.	Yes.	State Entomologist, Shreveport, La.
MAINE		Yes.				Either Inspection or Fumigation Certificate*	Commissioner of Agriculture, Augusta, Me.
MARYLAND		Yes.	File copy of Certificate.		Each shipment must bear the names of the consignor and consignee. Nurseries inspected at least once in six months.	Yes.	State Entomologist, College Park, Md.
MASSACHUSETTS						Either Inspection or Fumigation Certificate*	State Nursery Inspector, Amherst, Mass.
MICHIGAN		Yes.	File copy of Certificate to avoid delay.		Nurseries are subject to inspection; infested trees must be destroyed and the remainder of the stock within a half mile must be fumigated. Shipments into the State must bear on every package, plainly labeled, the names of consignor and consignee, statement of contents, and an official certificate showing that the contents have been inspected and properly fumigated. All nurserymen, whether residents of Michigan or other States, who wish to grow or sell stock within the State, must obtain a license from the State Board of Agriculture, for which the fee is \$5, and a bond for \$1,000 must be filed. A license will not be granted until a State or Government inspection certificate has been filed.	Inspection and Fumigation Certificate*	State Inspector of Nurseries and Orchards, Agricultural College, Mich.
MINNESOTA					State Entomologist shall inspect nurseries when he believes it necessary.	Yes.	State Entomologist, St. Anthony Park, Minn.
MISSISSIPPI					Importation from cotton boll-weevil infested districts of Texas and Louisiana prohibited, unless accompanied by U. S. Government Entomologist certificate.		State Entomologist, Agricultural College Miss.
MISSOURI					Must bear names of consignor and consignee.	Yes.	State Entomologist, Columbia, Mo.

CANADA—Within the Province of Ontario all nursery stock, except greenhouse plants, herbaceous perennials, herbaceous plants, conifers, bulbs and tubers, must be fumigated before shipment. Shipments into Canada must be addressed so as to enter Canada at one of the named ports of entry, where the stock will be unpacked and fumigated by the authorities. Ports of entry from March 15th to May 15th, in the Spring, and October 7th to December 7th, in the Autumn, are: St. John, N. B.; St. Johns, Quebec; Niagara Falls and Windsor, Ontario; Winnipeg, Man. During the Winter months only from October 15th to April 15th, at Vancouver, B. C. Dominion Entomologist, Ottawa, Ontario.

The Shipment of Nursery Stock in the United States and Canada.

March, 1905.

States and Territories.	No Law.	Fumigation required.	Must File a Duplicate Certificate.	Upon Receipt of Nursery Stock inform:	Special Laws.	Certificates are required and honored.	Obtain Information from:
MONTANA		Yes, at destination.		Inform State B. of Hort. 5 days before shipment arrives, giving date, R. R. and destination.	\$10* charged per carload for inspection and fumigation. All packing material must be burned immediately when emptied. All nursery stock, shipped in, shall come through one of the quarantine stations: Miles City, Billings, Dillon, Missoula, Kalispell, Great Falls, Glasgow. State nurseries are inspected by the Entomologist.	No.	Secretary State Board of Horticulture, Butte, Mont.
NEBRASKA						The Entomologist desires a Certificate.	State Entomologist, Lincoln, Neb.
NEVADA	No Law.						Director Experiment Station, Reno, Nev.
N. HAMPSHIRE						Certificate of Inspection or Fumigation*	State Nursery Inspector, Durham, N. H.
NEW JERSEY			It is advisable to file certificate.		Florist's stock is exempt. State whether fumigated or not. Owners must suppress injurious pests on their premises.	Certificate of Inspection required.	State Entomologist, New Brunswick, N. J.
NEW MEXICO	No Law.						Director Experiment Station, Mesilla Park, N.M.
NEW YORK		If shipped in from other states.		Transportation Company will notify Com. of Agri., Albany	Certificate required within the State. Nurseries within ½ mile from San José Scale infestation must fumigate.	No.	Commissioner of Agriculture, Albany, N. Y.
NO. CAROLINA		Not absolutely but advisable to avoid delay.	File certificate.		Annual inspection.	Certificate of inspection. Fumigation desired.	State Entomologist, Raleigh, N. C.
NO. DAKOTA	No Law.						State Entomologist, Agricultural College, N. D.
OHIO					Packages must bear name of consignor and consignee. Agents must file a sworn statement before delivery that stock is covered by a certificate. Blanks will be furnished.	Require Certificate of Inspection or Fumigation.	Chief Nursery Inspector, Columbus, O.
OKLAHOMA	No Law.						Director Experiment Station, Stillwater, Okla.
OREGON		All stock grown on apple roots must be fumigated.		Secretary State Board of Horticulture, Portland, Ore.	All shipments must be inspected at quarantine stations regardless of certificate.		Secretary State Board of Horticulture, Portland, Ore.
PENNSYLVANIA					Nurseries inspected once a year. Shipments must bear name of consignor and consignee.	Certificate of Inspection.	Secretary of Agriculture, Harrisburg, Pa.
RHO'E ISLAND					Fumigation certificate may take the place of inspection. Nurseries inspected each year.	Either Inspection or Fumigation Certificate*	State Nursery Inspector, Kingston, R. I.
SO. CAROLINA		Yes.	File certificate and secure tag.		Nurseries must be inspected annually. All persons outside the State must register a copy of their certificate of inspection, furnished by the authorized official of the State in which he resides, with the chairman of the board of entomology, which copy shall state that in addition to inspection the nursery stock has been fumigated under the direction of the official issuing the certificate.		State Entomologist, Clemson College, S. C.
SO. DAKOTA	No Law.				State nurseries are inspected.		State Entomologist, Brookings, S. D.
TENNESSEE					Infested stock, whether certified or not, is subject to confiscation.	Yes, Certificate of Inspection.	State Entomologist, Nashville, Tenn.
TEXAS	No Law.						State Entomologist, College Station, Texas.
UTAH		Yes.				Require Fumigation Certificate.	State Board of Horticulture, Salt Lake City, Utah.
VERMONT	No Law.				State nurseries are inspected upon request.		Horticulturist, State Experiment Station, Burlington, Vt.
VIRGINIA			File certificate and secure Va. tags.		Nurseries are inspected at least once each year. Unlawful for any person to sell or deliver any nursery stock, unless he shall first procure from the Auditor of Public Accounts, Richmond, Va., a certificate of registration, which certificate shall contain such rules and regulations concerning the sale of nursery stock as the Board of Crop Pest Commissioners may prescribe. Registration fee is \$20 for principals, with duplicates for agents free.	Yes, Inspection Certificate.	State Entomologist, Blacksburg, Va.
WASHINGTON			No.	Inform Commissioner of Horticulture, Tacoma, before shipment.	"Any person, firm or corporation, agent or solicitor to engage in the business of selling nursery stock" shall apply to the Commissioner of Horticulture, file a \$2,000 bond and pay a license fee of \$5 for nurserymen and dealers, and \$2.50 for each agent's duplicate license, biennially. Shipments into the State must be preceded by a notice of intention to do so and names of nurserymen and place of delivery must accompany such notice.	No.	Commissioner of Horticulture Tacoma, Wash.
W. VIRGINIA		Yes.			Every nurseryman or dealer employing agents, before having authority to do business in any county of the State must take out a license in such county and pay the sheriff a license fee of \$10; and the principal shall file with the clerk of the county court of each county in which he may have salesmen a list of his agents in said county. Nurseries are inspected annually.	Certificate of Inspection and Fumigation.*	Director of Experiment Station, Morgantown, W. Va.
WISCONSIN					Nurseries are inspected each year.	Yes.	Horticulturist State Experiment Station, Madison, Wis.
WYOMING	No Law.						Director Experiment Station, Laramie, Wyo.

*WHAT CONSTITUTES A FUMIGATION CERTIFICATE—An affidavit, executed before a Justice of the Peace, showing that the stock has been fumigated with hydrocyanic acid gas, using not less than two-tenths grams of potassic cyanide per cubic foot of space and exposing the stock to resulting fumes (in an air tight compartment) for not less than forty minutes, will be accepted in lieu of an inspection certificate, wherever a "fumigation certificate" is accepted. The affidavit must clearly state the above points, and a copy must be attached to each package, bundle or box.

(Breezy Notes from Kansas.—Continued from page 40.)

The beautiful valley about Oakland, Kansas, will present a different appearance next season. Formerly if one would see nursery stock grown by the 80 of 160 acre lot, or by the half section, and these crowded against one another till the whole valley was covered, he need only take a drive about Oakland. This year the same growers will be located up and down the Kaw, from St. Marys to Lawrence.

Lawrence, the Athens of Kansas, is fast becoming quite a nursery center, and Topeka will have to get a "hump on" or she will be one of the "has-beens."

J. F. Cecil, who was one of the most intense and enthusiastic nurserymen, is now exercising his intensity in producing good live stock for the market.

February has gone and done it again. Thirty degrees below on the 12th. The mercury seemed to get an attachment on a very low degree and stayed with it so long that zero weather seemed to be quite comfortable. It is too early at this date to predict results. An examination of one year Jonathan shows them to be uninjured. If they are all right other sorts are all right.

F. W. Watson, whose fertile mind turns every thing to his good, has a telephone pole standing near by the entrance to his alley. Instead of taking time to check his auto he uses the pole for a blocking and checking post. Repairs are made while he is otherwise engaged.

CONDITIONS OF PEACH TREES IN GEORGIA.

EDITOR NATIONAL NURSERYMAN.

The recent cold weather in Georgia has caused much alarm among the Fruit Growers, and all reports from various points indicate that the peach crop will be considerably reduced.

Fort Valley growers report Elberta buds injured to the extent of 50 to 60 per cent. Other standard varieties are not thought by them to be so badly hurt. Elbertas bloom ahead of nearly all other peaches in this State and the buds were consequently farther advanced. But peach buds during this recent freeze were not sufficiently advanced to be injured by ordinary cold weather. Only a freeze when the temperature dropped far below the normal could have caused the damage that is now apparent.

My own observations in peach orchards at Warm Springs, Ga., and at Richmond, Ga., show from 60 to 75 per cent, of the Elberta buds killed, even at a conservative estimate. Carmans examined by me were not injured to as great an extent, but some buds of this variety are dead. I should place the damage to Carmans and Georgia Belles at about 40 per cent. This loss will not jeopardize the crop of the latter varieties if nothing further occurs to lessen the remaining buds.

At Adairsville, Ga., I examined buds on Feb. 14th, the day following the coldest night that we have had. Thermometer registered 6 degrees below zero at Adairsville on the night of Feb. 13th. My observation at that time revealed many buds of the Elberta variety killed, and since then I have been informed that at least 75 per cent. are dead in the Adairsville orchards. I have not been enabled to examine buds of the very early varieties.

Spraying with Lime & Sulphur wash is being energetically pursued, in most orchards where San José scale exists, with promise of excellent results such as was realized from similar work last year.

I regret that I have not been able to examine more varieties of peaches, but all reports from various parts of the State seem to agree quite closely with my own conclusions in regard to the trees which were examined. I will try to give you notes regarding the blooming which will either confirm or discredit the accounts which have been published.

Atlanta, Ga.

R. I. SMITH,
State Entomologist.

NOTE:—We have seen peach trees with 50 to 60 per cent. of their buds winter killed, yield an excellent crop the same season. If the "thinning" has been done judiciously it may save the growers some labor.—ED.

Reports from Illinois and the Middle West indicate that the low temperature of the past month has injured the peach buds, and possibly has reduced the cherry crop. The cold in the Ozark region was unusually severe, and there is some doubt as to the condition of the tender varieties of apples. Peach crop gone in Missouri says Goodman.

Fruit and Plant Notes.

THUNBERG'S BARBERRY.

This fine member of the Barberry group we believe was introduced by Professor Sargent of the Arnold Arboretum a number of years ago. It was also brought to the notice of the nurserymen of the West twenty years ago by the late Professor Budd of the Iowa Agricultural College, who imported it from the Botanic Gardens at St. Petersburg through the co-operation of the Director, Dr. Ed. Regel. Few shrubs have sprung into popularity more rapidly than this Asiatic Barberry. Its low, dwarfish habit of growth gives it special value where small hedge plants are needed. This same characteristic obviates the necessity of much pruning. In autumn, the pleasant reddish glow of the leaves gives variety to the landscape and in some measure makes up for the lack of brilliancy of the berries which are borne singly or scatteringly instead of in racemes as are the common and purple-leaved barberries.

Besides having a value for hedging purposes, it is very desirable for massing and group planting where low growing shrubs are desired. The plant multiplies itself rapidly by adding to its crowns and it is readily grown from seed. Of course there is some possibility of a shrub of this kind being over planted. When a shrub has a range of variation from Manitoba to the Carolinas and is successful on a wide variety of soils besides being immune to the common diseases and insects, there is considerable danger of overplanting and of it becoming monotonously repeated from door-yard to door-yard. It is probable that no shrub of recent introduction is more deservedly popular than this one.

OUR FRUIT REGISTER.

SALOME—(Apple.)

Form, conical, smooth; size, medium; color, pinkish red, numerous dots; skin, smooth, glossy; cavity, broad, medium depth, smooth; stem, $\frac{3}{4}$ " stout; basin, very shallow; calyx, large, open; flesh, yellow, subacid; quality, poor to fair; texture, melting; core, large, open; seed, large; season, late winter. Somewhat lacking in distinctive flavor and aroma.

GENERAL NOTES: This originated with E. C. Hathaway, Ottawa, Illinois. It is a strong, upright grower and very productive. It appears to belong to the Rome Beauty group. Principally valuable on account of the vigor of the tree and the keeping qualities of the fruit.

MILWAUKEE—(Apple.)

Form, oblate, regular; size, medium, color, yellow, with pink flesh; skin, smooth; cavity, broad, shallow; stem, short; basin, broad, shallow; calyx, large, open; flesh, yellowish white; texture, coarse; quality, fair to good, brisk acid; core, small, closed; seed, very large ovate, light brown; season, early winter or later.

GENERAL NOTES: Tree a spreading grower, bearing early and abundantly; hardy.

Originated with George Jeffrey, Milwaukee, Wisconsin. Well spoken of in the North.

Appears to belong to the same group as McMahon white.

Among the Growers.

MARCH OFFERINGS.



The Jewell Nursery Co., of Lake City, Minnesota, offers a surplus of strong three year old apple trees such as are shown in this illustration. To those who need first class northern grown stock this opportunity is worth careful consideration.

C. R. Burr, Manchester, Ct., quotes Rambler roses at low rates.

Note the advertisement for Packer, P. O. Box 7118, New York.

Thos. Meehan & Sons, Dreshertown, Pa., are handling nurserymen's spades.

Jackson & Perkins Co., Newark, N. Y., are leaders in roses and clematis.

Now is the season for ordering garden seeds. Note Salzer's advertisement.

Examine Mendenhall's smoothing and levelling harrow, designed for nursery use.

The Reliance Nursery Co., Geneva, N. Y., make a specialty of packing free of charge.

For Norway maples and arbor-vitæ apply to the Tecumseh Nurseries, Cedarville, O.

The Andorra Nurseries, Philadelphia, Pa., are offering special inducements on Pin Oaks.

For a general line of nursery stock consult the advertisement of Geo. Peters & Co., Troy, O.

Stone & Wellington, Toronto, Ont., are offering standard apples, duty paid, at low rates.

A heavy stock of apple and peach has been grown by the New Haven Nurseries of New Haven, Mo.

Messrs. Cooper & Moncrief, Winfield, Kans., are long on Mahaleb stocks and forest tree seedlings.

T. W. & J. P. Rice, Geneva, N. Y., have a large stock of the leading orchard and bush fruits on hand.

Rakestraw & Pyle, Kenneth Square, Pa., are offering Japan plums and Keiffer pears in large quantities.

P. J. Berckmans Co., Augusta, Ga., have grown a long line of hedge plants well adapted to Southern trade.

Huntsville Wholesale Nurseries, Huntsville, Alabama, offer a heavy stock of orchard trees in all lines except plums.

The long-established firm of J. Van Lindley Nursery Co., Pomona, N. C., has 400 acres in nursery and ten greenhouses.

For a full line of standard apples, pears and small fruits consult the advertisement of the Monroe Nursery, Monroe, Mich.

Lord & Burnham Co., New York, and Irvington-on-the-Hudson, are specializing just now in greenhouse ventilating apparatus.

Marshall Bros., Arlington, Neb., are specializing in Russian Olive and Tamarix, in addition to other general lines of nursery stock.

The Niagara Gas Sprayer Co., of Buffalo, N. Y., offer a unique spray machine operated by carbonic gas. No pumps or engine required.

Those who are in need of tree seeds and forest tree seedlings should communicate with the Forest Nursery & Seed Co., Irving College, Tenn.

Franklin Davis Nursery Co., Baltimore, Md., in addition to car lots of apple, pear, and peach, offer ornamental shrubs and peach seed in quantity.

PRELIMINARY PROGRAM.

ANNUAL CONVENTION AMERICAN ASSOCIATION OF NURSERYMEN. JUNE 14-16, 1905. WEST BADEN SPRINGS, INDIANA.

ATTRACTIVE SUBJECTS.

The coming convention promises to be the most interesting one the American Association has ever held and all members who expect to attend should come prepared to ask questions and discuss each subject. As this program is only preliminary, it is open to modification and a number of subjects that have been suggested will probably be added later. It will include:

Soil Inoculation, (Stereopticon)

Dr. Geo. T. Moore, Department of Agriculture, Wash. Mistakes in office management, Thos. B. Meehan, Phila. Pa. Importing of nursery stock, By various ones interested. A Tree Garden to Last A Thousand Years, (Stereopticon)

J. Horace McFarland, Harrisburg, Pa. Plants in department stores, Howard A. Chase, Phila., Pa. Refrigeration of nursery stock, and storage in cellars,

Madison Cooper, Minneapolis, Minn. Experimental Pomology and the Nurseryman,

Prof. John Craig, Ithaca, N. Y. The lowest prices of ornamental nursery stock,

Chas. Maloy, Rochester, N. Y. What are the chief contributions to Pomology gained from the Louisiana exposition, J. C. Hale, Winchester, Tenn. Picking, packing, grading and shipping of fruit, (Stereopticon)

J. H. Hale, So. Glastonbury, Conn. The latest notes on the cost of a tree,

H. L. Bird, Benton Harbor, Mich. Views of a Texas Horticulturist, D. H. L. Borner, Omen, Tex. Best methods of improving our standards in trees and fruits,

G. L. Taber, Glen St. Mary, Fla. Crown Gall and Root Knot, Geo. C. Hedgecock, St. Louis, Mo.

The association will be welcomed by good speakers and the proper arrangements will be made for the meetings of the protective associations, probably Wednesday night the first day of the session. There will be a fruit banquet Friday night, and a splended trip to Mammoth Cave, Kentucky, on the Saturday following the three day's meeting.

HARLAN P. KELSEY,
Chairman Program Committee.

Boston, Mass.

The Deming Co., Salem, O., offer a barrel type of pump, also very useful.

The Fraser Nursery, Huntsville, Ala., in addition to standard fruits, carry pecans, privet, and hydrangeas.

Nurserymen should consult the advertisements of our spray machinery manufacturers, appearing in this issue.

The E. C. Brown Co., Rochester, N. Y., are pushing their hydropex pump, which is said to give excellent satisfaction.

The Spramotor Pump Company of Buffalo, have long been in the field with pumps of excellent quality and great durability.

Mount Arbor Nurseries, Shenandoah, Ia., are prepared to supply the trade with a full list of fruits, ornamental trees and shrubbery.

J. G. Harrison & Sons, Berlin, Md., make an exceedingly attractive edition to the advertising columns of the journal this month by their handsome dish of strawberries which graces the center of their ad.

We are sure that the beautiful insert of the Rochester Lithographing Company in this issue will be studied and admired by catalogue makers.

Our Book Table.

BOOK REVIEW.

"Weeds and how to Eradicate Them." By Thomas Shaw. Pp. 208. Illustrated. Published by J. E. Bryant & Company.

As a rule nurserymen do not recognize weeds as a serious problem because they are intensive cultivators and when land is managed in this way, the weed difficulty is not a weighty matter. This little book contains six chapters according to the table of contents, but seven according to the book itself. Some of the subjects treated are: the prevalence of weeds, possibility of destroying weeds, methods of distributing weeds and descriptive notes on particularly troublesome forms. The present edition is somewhat enlarged from the original.

"Little Gardens." By Charles M. Skinner. Cloth, pp. 250, \$1.25. Publishers, D. Appleton & Company.

The work of the many civic improvement societies in the United States has done much to create and maintain an interest in the condition of its lawns and back yards. When you come to think of it, why should not the term "lawn" refer to the plot in the rear of the house as well as in the front of it? The truth is, it does not. One is lawn; the other is back yard. Mr. Skinner discusses the subject interestingly on the whole though occasionally in rather a conventional manner.

He says: "The volume is designed for the family whose lands are a house lot. It is not a manual. It is not a grammar upon the subject of small gardens; it is a series of hints and suggestions which may be unendingly diversified."

The author very properly objects to topiary work, to ultra formality, grotesque figures and to bizarre effects. The book is sparingly illustrated with small half tones and more copiously with line drawings which are, however, not of first rate quality. The book has a mission and a field. It will undoubtedly be useful.

"New England Ferns and Their Common Allies." By Helen Eastman. Cloth, pp. 161, including drawings and index. (Price not indicated.) Houghton, Mifflin & Company.

This book constitutes a well executed effort to popularize the fern. The allies mentioned in the title, includes adder's-tongue family, club-moss family and horsetail family. The book opens with a tabular statement of the fruiting season of the forms mentioned. This is apparently accurate and probably will be useful. The preferred habitat of each plant is also given. The illustrations, according to the author, are by a new method. They resemble half tones and are mostly good. On the whole we are inclined to think that this is a very useful and suggestive little book.

"Color Key to North American Birds." By Frank M. Chapman and C. A. Reed. Cloth, pp. 312, \$2.50 net. Publishers, Doubleday, Page & Company.

This is an apparently successful attempt to classify birds by a color scheme, after the birds have been grouped on the basis of "obvious relationships." "They are then classified by their most prominent color markings under such headings as Birds with Red in Their Plumage, or yellow or blue, as the case may be, or Black and White Birds, Brownish Birds, etc., and on the outer margin of each page opposite the description of the birds, the characteristic features and a colored figure of each species is given." These illustrations are very conveniently arranged. It would appear that a three color printing process has been very successfully employed. The outdoor loving public is always in sympathy with a book which brings us a little nearer to our bird friends and this will undoubtedly be popular. As an appendix to the volume, is a key or rather a systematic table of North American birds, in which they are grouped under their families.

Vegetable Gardening. By S. B. Green. Pp. 249. 5th Edition. Published by the Webb Publishing Company., St. Paul, Minn. Cloth, \$1.00; paper, 50 cents.

While this volume was primarily prepared as a text book in a school of agriculture, yet there is nothing about the arrangement or matter which would prevent it from being used by the farmer as a very satisfactory reference volume. The crops are treated from the amateur's standpoint rather than that of the commercial grower and perhaps this is one of the reasons that the book has been so popular as to run

through four editions in a comparatively short time. When we note that it contains a monthly calendar of gardening operations it quite suggests the old herbal or garden calendar, although it would not be fair to say that it smacks at all of the flavor of this ancient type of book. This book is quite fully illustrated, although some of the half-tones and wood cuts have now become considerably weakened by frequent use. We can confidently recommend this to the person who wishes a book which will help in planting and carrying out a home garden.

HARDY TREES, SHRUBS AND CLIMBERS.

Bulletin No. 47, published by Central Experimental Farm, Ottawa, Canada, publishes a very important review of 15 years' experiences in growing ornamental trees and shrubs in Manitoba and the Northwest Territories of Canada. This bulletin by Dr. Saunders gives a most comprehensive view of the adaptability and hardiness of trees and shrubs to this cold and trying region. It should also be very valuable to nurserymen who do business in that region or others having equally inhospitable climates.

The bulletin contains extensive lists of trees and shrubs that have been tested and failed as well as those that have proved hardy and successful. Among the varieties that have proved desirable are the following: *Acer negundo*, Box Elder; *Acer tataricum*, Tartarian Maple; *Acer tataricum ginnala*, Ginnalian Maple; *Alnus glutinosa*, Common Alder; *Amelanchier alnifolia*, Alder-leaved June berry; *Amelanchier canadensis nana*, Shad Bush; *Artemisia abrotanum*, Old Man; *Artemisia abrotanum tobolskianum*, Russian Artemisia; *Berberis amurensis*, Amur Barberry; *Berberis Sieboldi*, Siebold's Barberry; *Berberis Thunbergii*, Thunberg's Barberry; *Berberis vulgaris*, Common Barberry; *Betula alba*, European White Birch; *Betula alba laciniata pendula*, Cut-leaved Birch. *Betula papyrifera*, Canoe Birch.

Caragana arborescens, Siberian Pea tree; *Caragana frutescens*, Woody Caragana; *Caragana grandiflora*, Large-flowered Caragana; *Celastru scandens*, Climbing Bittersweet; *Clematis ligusticifolia*, Virgin's Bower; *Clematis recta*, Erect Clematis; *Clematis virginiana*, Virgin's Bower; *Clematis vitalba*, Travellers' Joy; *Cornus alba sibirica*, Siberian Dogwood; *Cornus stolonifera*, Red Osier Dogwood; *Corylus Americana*, Common Hazel Nut; *Corylus rostrata*, Beaked Hazel Nut; *Cotoneaster acutifolia*, Sharp-leaved Cotoneaster; *Crataegus chlorosarca*, Hawthorn; *Crataegus coccinea*, Scarlet Hawthorn; *Cytisus capitatus*, Broom.

Eleagnus angustifolia, Russian Olive; *Eleagnus argentea*, Wolf Willow; *Fraxinus pennsylvanica lanceolata*, Green Ash; *Lonicera spinosa*, Albert Regel's Honeysuckle; *Lonicera Macki*, Maek's Bush Honeysuckle; *Lycium Chinense*, Chinese Matrimony Vine; *Neillia opulifolia*, Ninebark; *Philadelphus* (In variety); *Populus balsamifera*, Balsam Poplar; *Populus berelensis*; *Populus certinensis* and many others; *Prunus americana*, Wild Yellow or Red Plum; *Prunus nigra*, Canada Plum; *Prunus pennsylvanica*, Pin Cherry; *Prunus pumila*, Sand Cherry; *Pyrus baccata*, Siberian or Berried Crab; *Pyrus americana*, American Mountain Ash.

Quercus macrocarpa, Mossy-cup Oak (the only hardy oak); *Rhamnus alnifolia*, Alder-leaved Buckthorn; *Rhamnus cathartica*, Common Buckthorn; *Ribes alpinum*, Mountain Currant; *Ribes aureum*, Missouri Currant; *Rosa blanda*, Prairie Rose; *Rosa ferruginea*, Purple-leaved Rose; *Rosa rugosa*, Japanese Rose; *Salix alba*, White Willow; *Salix fragilis*, Brittle Willow; *Salix Voronesh*, Voronesh Willow; *Sambucus canadensis*, American Elder; *Sambucus nigra aurea nova*, Golden Elder; *Shepherdia argentea*, Buffalo Berry; *Shepherdia Canadensis*, Canadian Shepherdia.



Good Fruit Versus Bad

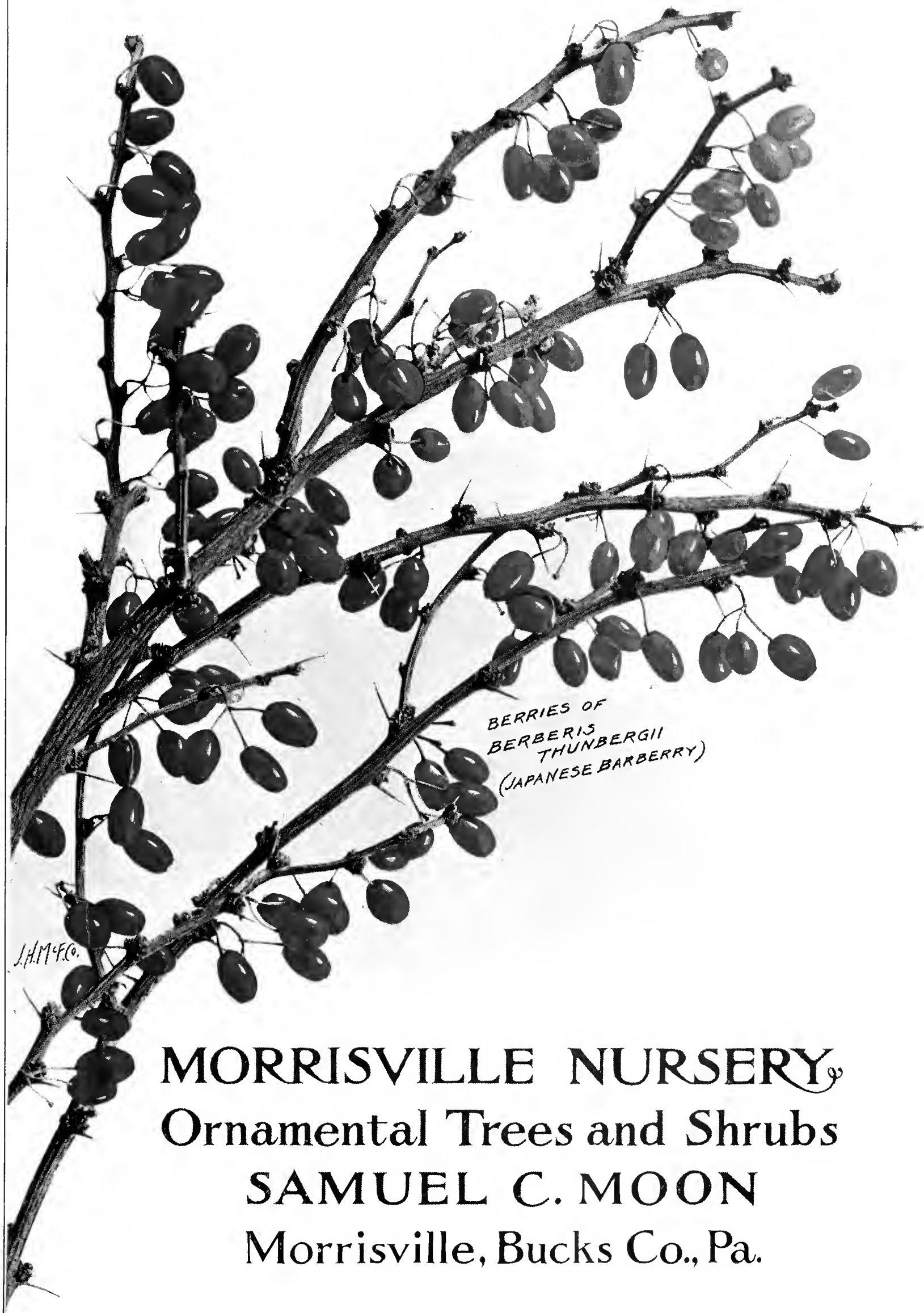
is the subject at issue and no wide awake farmer will doubt which is more desirable.

The Spramotor

absolutely insures you 80% of an increase in the crop from your orchards. The Spramotor pays for itself many times over which is better than costing you nothing. Don't confuse it with Spray Pumps. Write for Booklet (A). Full particulars free.

SPRAMOTOR CO.

Buffalo, N.Y. London, Canada.
AGENTS WANTED.



BERRIES OF
BERBERIS
THUNBERGII
(JAPANESE BARBERRY)

J.H.M.C.

MORRISVILLE NURSERY
Ornamental Trees and Shrubs
SAMUEL C. MOON
Morrisville, Bucks Co., Pa.

Cover designed for Samuel C. Moon's 1905 Catalogue, as completed by

J. HORACE MCFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA

[OVER]

Correspondence.

ROOT-GRAFTING VERSUS BUDDING.—I

I was struck by the article on Root-Grafted versus Budded Trees, in the last issue of the *NURSERYMAN*. The writer seems to have only recently found out a fact that European nurserymen have long accepted as fundamental, viz., that budded stock grows faster than grafted. Those amongst us who are trying to extend the "natural habitat" of the apple tree northward have on the other hand long recognized that the budded tree is a step backward; and the higher from the ground it is budded the more dangerous does this backward step become. This is of course due to the varying hardness of the seedling stock. The test winter of 1898 and 1899 in my own orchard, and in many others furnished an opportunity when looking over the field as inspector of the State Board of Horticulture and showed clearly that the seedling stock was often killed, while the hardy top was not injured. Where the bud was placed low enough to be covered with earth or snow this injury did not appear.

Let me describe what weather did this. On January 23d, I was plowing; nice spring weather, and everything looking ready to start into life. That afternoon the blizzard came up. I kept on plowing the ground, turning nicely, but the furrow freezing as it fell. Before I quit, the thermometer registered twenty-three degrees below zero.

I have a test orchard of 500 trees, one half budded, one half grafted, planted alternately, so had a good opportunity to judge the two. You may not know that I brought three trees of English Paradise dwarf stock through that winter uninjured. I was testing them for a hardy stock to bud on. They are nine years old now, uninjured and bearing large crops of the characteristic small yellow sweet apple. I believe the stock is hardy and reliable and some day I intend to try a fair sized garden orchard budded on the English Paradise. A hardy, cheap stock, not a dwarf, is really wanted. I also brought safely through that winter and eight other winters, about thirty varieties of the best English apples, all grafted and most of them established on their own roots by deep planting. I have amongst them Cox Orange Pippin and Peasgood Nonsuch. I am not ready yet, however, to report on them. On examining others planted on the same system, I find that the original seedling root being so far under ground shows signs of sloughing off. The tree is altogether on its own roots, the seedling having merely served the purpose of starting growth above. The late Professor J. L. Budd, of Ames, Iowa, was much interested in this experiment and I had some correspondence on the subject. The English varieties were selected for me by George Bunyard, F. R. H. S., Maidstone, England. Some forty varieties of pears, however, all winter killed.

H. C. B. COLVILL.

MISSOULA, MONT.

NOTE.—We fear that our Montana friend is on the wrong tack if he expects to grow apples on dwarf or semi-dwarf stocks of the kinds mentioned, in the vigorous prairie climate of Montana. Better try the berry crab *Pyrus baccata*.—Ed.

II

It is argued by some of our leading horticulturists that the grafted tree has the advantage of being partly on its own roots, as the scion extends about four inches under ground, and that roots are thrown out from this scion. We find that in most varieties of grafted apple that less than ten per cent. ever threw out roots from the scion, especially with Missouri Pippin and Wine Sap it is a rare exception to see a root from the scion, while in budded trees they are as well rooted as other varieties. This leaves our grafted trees with no brace roots to keep them from weaving around when transplanted until they work great holes around the base of the tree or blow over, while our budded trees are as solid and firm as a post with anchor rods attached. Forest trees, corn, and plants that grow from seed and root according to nature, are provided with these systems of brace roots in addition to their lower root system. A budded tree is provided in the same way, while a grafted tree has lost this power by having a scion substituted for a part of its root. Enclosed find circular showing photographs of the seedlings and formation of root before bud is started, also showing one and two year budded and grafted trees of the same variety grown by us on similar ground. While we do not wish to criticize,

we do not consider your article a fair answer, as it is based on whole root grafts, which we believe have little if any advantage over piece root grafts.

Winfield, Kansas.

WINFIELD NURSERIES.

NOTE.—We cannot agree with our correspondent that the scion does not overrule the budded root as well as the root-grafted root. The influence of the scion may not be apparent so soon but "it gets there just the same" if we give it time. The actual union whether of bud or scion must be the same in kind because it takes place between the same parts—the combining of the two. Of course the wood of the scion a splinter of wood if left in the bud—does not unite, because growth of these woody parts does not occur. As to rooting from the scion, this differs greatly with varieties. There is certainly much force in the above well timed remarks.

Ed.

A REMARKABLE RECORD OF SERVICE.

One of the most interesting stories of long service and loyalty on the part of an employe comes to us from the Waukegan Nurseries of Illinois. Some years ago we had occasion to make a collection of coniferous plants on behalf of the Iowa Agricultural College, and took advantage of a kind offer of Mr. T. H. Douglas to get together the nucleus of the collection in his nursery. In digging the plants we became very much interested in the laborer who assisted us. He was called "old Mike," his full name being Michael Schmidt. The intelligent though unschooled knowledge of plants this man showed, his absorption in his work, and the affectionate regard displayed for the trees attracted our attention. The place was of as much importance to him in all respects as to his employers. The handling and care of the plants weighed upon him as heavily as upon the foreman. He was altogether a unique character.

It appears that he entered the employ of Robert Douglas in 1853, although he had worked occasionally on the farm for some years previous. Since 1853 he has worked continuously in the Douglas Nurseries. He has never been sick a day, and has never lost a day for any reason. He has passed his octogenarian milestone, and is still hale and hearty.

Mr. Douglas is of the opinion that he has handled more plants than any man living, for each season several million forest trees seedlings, large and small, pass through his hands. Some years ago the hours were reduced from ten to nine, but it was many days before "Mike" could accustom himself to the shorter working period, and for a time he insisted on beginning and quitting at the regular accustomed time.

This record of health, usefulness, energy and service is a strong recommendation for the life of a nurseryman. Mike has lived essentially an outdoor life. His regular habits have brought their reward.

J. C.

Obituary.

PROFESSOR A. S. PACKARD: The United States, in particular, and the world at large, lost a noted scientist by the death of Professor A. S. Packard of Brown University. His demise occurred about the middle of January. Professor Packard has been well known in the realm of natural science by his research and works upon zoology and entomology. His text books on these subjects have been found well adapted to school and college work, and have been widely used.

HERMANN WILFARTH: There died at Brenburg, Germany, on November 27, 1904, Hermann Wilfarth, director of the agricultural experiment station of this place. Professor Wilfarth is known to the agricultural world as the associate of Professor Hellriegel, in the classic investigation on the nitrogen feeding of grasses and leguminous plants. The results of these experiments were published in 1888, and marked an epoch in the advance of agricultural science.

SELIM LEMSTRÖM: The death of this noted scientist occurred in Finland on October 2d. Professor Lemström is noted for his work on agricultural physics. His investigations on the influence of electricity on plant growth; on the prevention of light frosts by the use of smudges and vapor are widely known. Professor Lemström visited the United States some years ago, and was in close touch with a number of our experiment station workers.

Our fruit and Plant Register

ESOPUS (SPITZENBURG).

It is most gratifying to note that this fine old variety is again coming into fashion. It is receiving more nearly its share of public attention. There is a special reason for this, and this lies largely in the fact that our friends on the Northwest Pacific coast are demonstrating the possibilities of the Oregon climate and soil for the production of beautiful specimens of this noble variety.

"Esopus Spitzenburg" was styled by Cox in 1817 as an "apple of great beauty and exquisite flavor." He credited the vicinity of Albany, N. Y., with being its place of origination. Cox also mentions the "Flushing Spitzenburg" of Long Island, and thinks that any difference which may exist between them is due to the influence of soil and climate. Most fruit growers who know the two types do not subscribe to this opinion. They will, however, second this veteran fruit grower in his estimate of the quality of the fruit of this better known form. (See frontispiece.)

Oregon Spitzenburgs from the Hood River Valley have successfully entered the somewhat limited high class apple market of New York City. The box package, coupled with rigid grading and handsome fruit, have enabled the Hood River men to contract their fruit at remunerative prices with dealers who cater to the fancy trade.

We believe that more Esopus Spitzenburgs will be planted in the next five years than have been planted in the past twenty-five in New York and New England. One of the difficulties in growing this variety in the past has been the susceptibility of the fruit to fungus and insect attack. Another objection to the variety has been the weakness of the tree, both in nursery and orchard. It is not a pleasing grower in nursery, and this has retarded its propagation. On the other hand, there are here and there in Central New York, finely developed and still healthy trees of this variety many of which now approach the three-quarter century mark.

We believe that Esopus and King should be top worked on vigorous stocks. We believe that there will be a limited field for nursery effort in this line, that the man who can guarantee weak growing varieties and on good vigorous stocks will find a profitable and, perhaps in the future, an extensive market.

ROME (BEAUTY).

Unlike Spitzenburg, this is a comparatively modern variety. At any rate, its appearance as a commercial sort dates back only a few years. It originated in Southern Ohio, and in that region appears to find its greatest range of usefulness. It has been brought into prominence mainly through the experience of a few of the careful and progressive fruit growers in that state, notably U. T. Cox of Ohio. It is securing a hold upon the planters in New York, and to some extent on New England. A few of the nurserymen in Western New York have advocated its merits very warmly.

We are not prepared to say that this variety, like some others, has a naturally wide range of adaptation. We are more inclined to think that its field of usefulness is more or less restricted to the region of its origination. Many specimens that we have seen grown in New York, for instance, have lacked color, and have not impressed us as being particu-

larly desirable in point of quality. The illustration presented with this was made from a photograph of a beautiful cluster of fruit furnished by Mr. Cox. This sample was not only handsome in appearance, but was also good in quality. The fruit is regular in outline, which facilitates safe packing and shipping. This is an important point in connection with a commercial apple; for one which like the York Imperial is characterized by sharp ridges is much more subject to injury than a variety regular in outline, like Wealthy or Baldwin.

Trade and Other Jottings

—Lord & Burnham offer both iron and wooden frame greenhouses.

Circular West Michigan Nurseries, Benton Harbor, Wholesale price list.

—The Tecumseh nurseries or Cedarville, Ohio, are carrying a larger stock of apple trees.

—For Crimson Ramblers and high grade roses "call up" Jackson & Perkins, Newark, N. Y.

"Choice Trees and Hardy Shrubs," being the title of the attractive catalogue of Frederick W. Kelsey, 150 Broadway, New York.

—The Monon Route will take a hand in transporting visitors to West Baden Springs. Write Chas. H. Roekwell, Chicago, for particulars.

—Note horticultural implements offered by E. G. Mendenhall of Kimmunity, Ill. Circulars and prices will be furnished on application.

—Arthur W. Cowee of Meadowvale Farm, Berlin, N. Y., is growing a large stock of the celebrated Groff Hybrid Gladioli. These are usually fine.

—Among the implement attractions promised for the West Baden meeting is a sample of the Speer Grafting machine. The working of the machine will be illustrated in a practical manner by E. G. Mendenhall of Kimmunity, Ill.

COMMENTS ON THE PROGRAM FOR WEST BADEN. EDITOR NATIONAL NURSERYMAN.

DEAR SIR:—The subject of soil inoculation is a most interesting and important one, and we think it would be very desirable to have it presented at the coming meeting of the Nurserymen's Association. ELLWANGER & BARRY.

Rochester, N. Y.

EDITOR NATIONAL NURSERYMAN.

DEAR SIR:—We should be glad to hear a paper written by Dr. Moore at the West Baden meeting in regard to soil inoculation. We have no question, but that there is something in this, that will be of value to everybody, when it is found out what can be done, and we would like to know all that we can about it. THE STORRS & HARRISON CO.

Painesville, Ohio.

EDITOR NATIONAL NURSERYMAN.

DEAR SIR:—The subject of soil inoculation is one with which I have had no experience, but from what I have read and know of Dr. Moore's theory, I consider it one of the most important questions that will likely come before the Nurserymen or any other tillers of the soil, and I hope there will be a full discussion of the topic. We Southern Nurserymen in particular are greatly interested in that question and expect to begin experimenting right away, but we want further light on the subject and hope it will be given to us at the coming meeting. J. VAN LINDLEY, Pres.

Pomona, N. C.

The National Nurseryman

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., APRIL, 1905.

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Programme—Harlan P. Kelsey, Boston; Herbert S. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.
Publicity—Ralph T. Olcott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.
Exhibits—R. C. Berckmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.
To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

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NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
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WESTERN ASSOCIATION OF WHOLESALE NURSERYMEN. President, Peter Youngers, Geneva, Nebraska; Secretary, D. J. Holman, Leavenworth, Kansas.
SOUTHERN NURSERYMEN'S ASSOCIATION—President, W. T. Hood, Richmond, Va.; vice-president, Henry Chase, Huntsville, Ala.; secretary, J. C. Hale, Winchester, Tenn. Meets at Asheville, N. C., in August, 1904.
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PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.
NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

All indications point to a convention of surpassing interest and pleasure. The members of the program committee, headed by the resourceful and active Harlan P. Kelsey, have arranged a mighty tempting bill of fare. It is now up to the members of the association to show their appreciation by attending the meeting, and taking a live part in the discussions. Don't let the speakers have it all their own way. Challenge speculative or dubious statements, and make them "show the goods." It is not always desirable, but sometimes well, to have a man attend a session in the spirit of the deacon who, on walking down the street, was asked by a friend where he was going. "Jist doon to the meetin," he answered. "And what for?" inquired the friend. "Ah, jist to contradeck a bit," responded the deacon. Everything may not be gospel that is exploded at a convention, even though fired off by an expert or a professor. The amount of good a man gets out of a convention is often accurately measured by the amount of personal interest he has taken in it.

"Coopers are jubilating over the fact that statistics compiled by the Western brewer show that the consumption of beer in the United States," says the BARREL AND BOX, "exceeded that of the previous year by 1,557,403 barrels." Just think of it! Wood used up to the amount necessary to make the enormous number of 48,208,133 beer barrels in 1904, more than a barrel to each two persons, men, women, and children in the United States! The increase has been steady and rapid since 1899, and if signs do not fail, many more thousands of barrels of beer will be consumed in 1905 than in any previous year. It is interesting to note that among the states that have not shown an increase in the consumption of beer are Arkansas, Colorado, Florida, Georgia, New Hampshire, and Texas. Missouri shows the largest increase. We suppose that this is to be credited to the influence of the World's Fair.

A remarkable instance of the passing of an industry is furnished us by the report of the Bureau of Soils on the Survey of the Long Island area, New York. In 1885 Long Island was a milk-producing section of considerable importance. It made annual shipments of milk at that time to New York City to the amount of 1,661,260 gallons. In 1890, the amount had fallen to 1,236,570 gallons; in 1895 to 503,800; and in 1899 to 3,890 gallons, since which time railroads have not reported the shipments, owing to the extreme smallness of the quantity. A great transition has occurred. From dairying, farmers have taken to trucking, and as there has been a marked decline in general farming on the island, there has been an equally marked increase in market gardening and vegetable growing. This is a natural response to changed economic conditions produced by the influence of the great New York market. Farmers can no longer afford to produce milk on their high priced lands. The sandy soils are well adapted to gardening and trucking, and the possibilities of a well tilled acre are extraordinarily large. In the best market section of the Island, ten acres of land, well managed, bring the owner much larger net returns than farms

of 100 or 150 acres farmed in the ordinary way. Probably the best illustration of intensive farming is to be found in the vegetable growing sections of Long Island.

Farmers and fruit growers must adapt themselves to changing conditions or go to the wall. Happy is the man who recognizes the danger signals in time to adjust his business to the new conditions.

We trust that the readers of the NATIONAL NURSERYMAN have been interested in the pointed discussion of this subject which has occurred in recent numbers of this journal. The question is, should not nurserymen have clearly defined standards for the different classes and grades of nursery stock?

THE GRADING OF NURSERY STOCK.

Fruit shippers have these standards established for the various grades of fruit, and they have something to fall back upon when dispute or difference of opinion arise. At present each wholesaler maintains his own ideal of grade and quality: and if it is high and rigidly adhered to, his goods acquire a reputation in the market and are sought after. The estimate of another nurseryman may differ radically, largely because the two men maintain different ideals. These differences occasionally give rise to misunderstandings and little unpleasantnesses between buyer and seller.

As there is no recognized standard, there is no satisfactory basis for adjustment, and troubles are not easily settled. We are drawing attention editorially, to this important subject, for the purpose of enlisting the interest and co-operation of those affected by the establishment of such grades, in the hope that out of the discussion something definite will grow. Whether this occurs or not, the discussion, we believe, will prove profitable. We are also of the opinion that this subject should be thoroughly ventilated at the annual meeting in June, and that if no satisfactory conclusion is possible at that time, a committee should be appointed to take the whole question under advisement and report at a later date.

For the past three or four months the columns of the horticultural press have been liberally tintured with striking announcements and extraordinary claims regarding the discovery by a certain John Spencer, of Grand Junction, Col., of a seedless apple. This has created an unusual furore in the horticultural world, due probably to shrewd advertising on the part of the promoters of this creation.

SEEDLESS APPLE EXCITEMENT.

There are several points involved, worth discussing. First, is the fact of creation. There is nothing so unusual about seedless apples as to raise even a slight doubt as to the possibility of their appearance. For the past two hundred years they have been chronicled from time to time. Recently the word "coreless" has been substituted for the first name given. This is quite another proposition, and we are inclined to question the propriety of using the name.

The cause of this variety is certainly being injured in the sight of thinking, fair minded people, by the many inaccuracies of statement, and extravagant claims made for it. Some of these claims are not only improbable, but absolutely absurd. It has received a great deal of notoriety by clever

advertising schemes. From the character of the articles which have appeared, one would think that hack writers had been employed; and through their influence the apple has found its way into the columns of such papers as the *Scientific American*, and from thence to the literary journals.

The facts seem to be that an apple tree bearing blossoms without petals (apetalous) was also found to produce apples with few or no seeds. This is quite within the range of probability, because it usually follows that one abnormality is accompanied by another. The young trees perpetuate, as one would expect, the freakishness of the parent. The promoters now proceed to claim that original and peculiar methods were employed to bring this seedless variety into being. This at once raises a doubt in the mind of the plantsman, as to the value of the whole thing, because animal and plant breeders have learned that nature cannot be depended upon to obey absolutely any method in propagating by sexual means. So we reject this claim as untenable, and to that extent other assertions are materially weakened.

Let us have a seedless and coreless apple by all means, but let the whole matter of introduction be a square deal, and be upon the merits of the variety. Let the fruit be exhibited and be passed upon by competent authority, before it is exploited and offered to a susceptible public. We have no quarrel whatever with varieties of merit, but we view with suspicious eyes any fruit which is being as extensively advertised as this, so long in advance of introduction and actual trial.

The way in which certain flowers at occasional periods come to the front and occupy public attention emphasizes the statement that fashions in flowers do exist. To President McKinley is due much of the credit of popularizing and making the carnation, a fashionable flower in recent years. The Orchid in England has held its place as the flower of the exclusives by the efforts of certain of the aristocracy who are horticulturally inclined.

INTEREST IN PEONIES.

Just now, the good old-fashioned plant of grandmother's garden, the peony, is receiving some of that attention. Much of this is to be credited to the efforts of the American Peony Association.

A number of interesting and valuable articles on the peony have appeared in various horticultural periodicals during the past few months. One of these, entitled "Notes on the Cultivation of Peonies," was recently presented, before the Massachusetts Horticultural Society by Dr. Robert Tracy Jackson, of Cambridge. Mr. Jackson says that there are about two dozens species of peonies known to botanists. Only a few of these appear to contribute forms which have been generally cultivated.

The first peony blooms of the spring are given us by *Paeonia tenuifolia*. Of these there are single and double forms appearing in May. The coloring of this type is exceedingly brilliant and the single forms are particularly striking. Following this finely cut-leafed variety come the forms which belong to *Paeonia officinalis*, variety *rubra*. Here is the true peony of old-fashioned gardens. It is after all, probably the best of the whole list. Other varieties of this form are the rose-colored and the white, or pinkish white; they follow the double red and are useful in extending the season.

In order of flowering season, the tree peony should be mentioned next, but classifying them according to habit of growth the peony, *Peonia albiflora*, should have first mention. This is a conglomerate group, perhaps the result of natural hybridization. The blooming season extends from the first of June into July. In this group we have single as well as double varieties. These forms close the peony season giving a flowering period of at least six weeks beginning with *Peonia tenuifolia*.

A distinctive form of peony is what is known as *Peonia Moutan*, ordinarily called the tree peony, having a more or less woody stem. It is probably a native of Eastern Europe but thus far it has not been discovered in a wild state. This is a handsome form but not as hardy as the herbaceous types, for the reason that it is not so completely protected in winter. It is propagated by grafting on its own stock, or on *albiflora*, or on the *officinalis* stock. The method of grafting appears to be quite simple. Either veneer or the cleft grafting style is used, commonly the latter. The root is spliced, a scion inserted, the union tied and covered with grafting wax. Peony propagators now usually pot the grafts singly and plunge in cold frames. The work is done in September and the pots are propagated in this frame throughout the winter and set out the following spring. Having them in pots, removal can be made without seriously disturbing the plant.

On account of the hardness of this plant, its adaptability to dry soils as well as moist conditions, its general ability to take care of itself, and the fact that it may remain undisturbed in the same position for a number of years, peculiar value is given our old garden friend. Herbaceous peonies are hardy practically everywhere.

If given a little protection in the way of a mulch in the fall, they can be grown even in Manitoba and the Canadian Northwest Territories. The Tree peony is grown at Ottawa Canada, with satisfaction and without difficulty. It should be protected by mulching in the autumn.

The American Peony Society will hold its annual meeting in Chicago just before, or after the session of the Association of American Nurserymen at West Baden Springs, June 14-16.

—Chicago markets were overstocked with Florida grape fruit during the early part of March.

—The Escambia Fruit Company, of Brewton, Md., has been incorporated with a capital stock of \$25,000. About two hundred acres of land are to be planted with fruit trees. The incorporators are John T. Shanahan, L. E. Winne, J. H. Pool, and William Davis.

—It is announced that more than 300,000 peach trees will be set out in the vicinity of Barnesville, Ga., this spring. This added to the number already planted will bring the total up to 1,000,000 trees in that immediate vicinity. Conservative estimates of the Georgia peach crop for 1905 bring it down to about one-half of that of last year. The Central Georgia Railway carried 2,213 cars of peaches in 1904, and it is expected that 1200 or 1400 cars will supply the demand the coming season.

THE CONSUMPTION OF BANANAS IN THE UNITED STATES.

Very few people realize how steadily the consumption of bananas is increasing in the United States. This is very remarkable in the face of the fact that the production of American fruits is advancing with astonishing rapidity. In 1902, bananas to the value of \$7,097,037 were imported; in 1903, the imports increased to \$8,754,514, showing an increase of \$1,657,477. The British West Indies have contributed about nearly half of the total amount. Costa Rica stands next as an exporting region.

AMERICAN ASSOCIATION OF NURSERYMEN.

AT WEST BADEN, INDIANA.

JUNE 14TH, 1905

For the above occasion we have arranged to run a *special Pullman Sleeping Car through* (without change) from *Rochester to West Baden, Indiana* at rate of \$4.00 per berth, and room at \$14.00 via *New York Central; Lake Shore and Michigan Southern; Big Four Route and Monon Route*.

JUNE 12TH, 1905.

LEAVE ROCHESTER, 9:45 P. M.

ARRIVE WEST BADEN, INDIANA, 5:55 P. M., JUNE 13TH.

For rates, Sleeping Car reservations or any other information, apply to Mr. J. C. Kalbfleisch, D. P. A., N. Y. Central, Rochester, N. Y., or to Mr. Chas. L. Yates, care of NATIONAL NURSERYMAN, Room 205 Cox Building, Rochester, N. Y.

SHIPMENT OF FRUIT FROM CALIFORNIA FOR THE YEAR 1903

During the year 1903 a total of 69,696 cars of fruits (not including vegetables) were shipped out of the State by rail and sea. The figures thereon are computed into carloads of ten tons each, as follows:

*Per 10-ton cars.

Fresh Deciduous Fruits.....	10,420
Citrus Fruits.....	29,962
Dried Fruits.....	14,953
Raisins.....	3,996
Nuts.....	938
Canned Fruits.....	9,420

*These calendar figures in 10-tons should not be confused with the "seasonal output" figured in carloads of 360 boxes.

PACIFIC FRUIT WORLD.

A BIG PEACH SCHEME.

At Huntsville, Alabama, W. A. Newsom, a nurseryman, and several associates are planning to establish orchards aggregating 100,000 peach trees in various portions of Madison County. Those on those lands the trees will be planted will own a half interest in the orchards, but Mr. Newsom will have charge of marketing the entire crop.

THE CO-OPERATIVE SPIRIT.

A. H. HEWS & Co., INC., PA.

We like to see evidences of good fellowship and cordiality between employer and employee. An example of this kind was recently given by Mrs. A. H. Hews, widow of the former owner of the above concern. Mrs. Hews recently entertained at dinner and afterwards with music and addresses one hundred and thirty members of the employees and their families. The wives of the officers served the dinner and the affair was most enjoyable and harmonious to all concerned. Such occurrences are much too rare.

TIME REDUCED

NINETEEN AND ONE-HALF HOURS
TO MEXICO.

Wasbash Line trains make close connections at St. Louis with trains via the Iron Mountain Railway and Laredo Route carrying through Palace Sleeping cars to the City of Mexico. Time is less than three days from St. Louis. Two Trains Daily. You can leave St. Louis at 2:21 P. M. and arrive at City of Mexico 10:50 A. M. the third morning or you can leave St. Louis at 8:20 P. M. and arrive City of Mexico 7:30 P. M. the third evening. Mexico is a delightful and healthful winter resort. Your nearest Ticket Agent will give you full information or write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A., 287 Main Street, Buffalo, N. Y.

Among the Experiment Station Workers.

LOUISIANA: Director, W. C. Stubbs, for twenty years in charge of this station, and professor of Agriculture in the University, has recently retired. He has been succeeded by W. R. Dodson.

MASSACHUSETTS: The State Agricultural College has a bill before the Legislature asking for an appropriation of \$106,650 for buildings. This includes about \$60,000 for buildings for the horticultural department.

NORTH CAROLINA: An experiment farm has been established in the mountain section of the state near Hendersonville, for the specific purpose of conducting experiments with orchard fruits and trucking crops.

TENNESSEE: Professor H. A. Morgan, a graduate of the Ontario Agricultural College, and recently Professor of zoology in the Louisiana University, becomes director of this station.

MINNESOTA: The annual report of the State Entomologist of Minnesota for 1904, has reached this office. It comprises a volume of 195 pages nicely illustrated with half tones, line drawings, and colored plates. The principal injurious insects are described and figured. An interesting chapter on spray machinery is included, but perhaps the most readable section of the whole book is entitled "A Plea for Some of Our Common Birds, Based Upon Their Food Habits." This is a timely discussion of the value of birds as insect destroyers. This report is to be highly commended to the nurserymen of the Northwest, and will be of unquestioned value to anyone interested in tree or plant growing.

BUREAU OF PLANT INDUSTRY: Bulletin No. 66 of this bureau gives a list of the seeds and plants introduced by the agents of the department from September, 1900 to December, 1903. It includes 4,396 entries; of course, not necessarily that number of new introductions. The report is presented by David G. Fairchild, agricultural explorer. Many of the introductions have been obtained through the co-operation of Mr. Barbour Lathrop of Chicago. The Bureau is fortunate in having the assistance of such a public spirited citizen as Mr. Lathrop has proved himself to be.

OHIO: Soil studies. Contains a somewhat technical description of the types of soil found mostly in the Ohio State University Farm at Columbus, and the experiment station at Wooster, in addition to one or two outlying points. The bulletin will undoubtedly be of interest to residents of the state, but appears over-technical for the ordinary farmer.

W. S. Thornber, late instructor in horticulture in the agricultural College of South Dakota, who came to Cornell University last fall for the purpose of taking graduate work in horticulture, has been recently elected to the Chair of Horticulture in the State Agricultural College of Washington. Mr. Thornber has had a number of years experience as a teacher and instructor, and in his new field he will undoubtedly meet with success.

The Division of Pomology, United States Department of Agriculture, is investigating the shipping end of the citrus fruit industry in California. A circular letter has already been issued by the agent in charge, G. Harold Powell, which calls attention to several sources of loss in the handling of the fruit. One of these is the careless use of clippers in trimming the stems. It has been found that the fruit is injured from one to fifty per cent. by different pickers. Every injury of this kind shortens the life of the fruit.

COLONIST RATES.

To Pacific Coast Points, Via WABASH RAILROAD. On sale March 1st, to May 15th inclusive, \$42.50 to all Pacific Coast points from Buffalo. Correspondingly low rates to points in Utah, Montana, Idaho Washington, Oregon and California. Ask your Local Agent or write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A. 287 Main Street, Buffalo, N. Y.

Quiz Column.

PROPAGATING CURRANTS.

Question: Please give general directions for striking currant and gooseberry cuttings. I have had no experience. Indiana. F.

Ans: There is usually not the slightest difficulty in growing currant cuttings by almost any method of treatment, provided they are not set in the fall in "heavy" ground. When this is done, the frost may throw them out. My own experience in growing currants from cuttings leads me to recommend the making of the cutting as soon as the wood is ripened in the latter part of August and the planting of it immediately. If set out this time the roots will develop the same season; and if the cuttings are protected by a mulch (which will prevent frost heaving them), they will grow rapidly and make strong plants by the end of the next season. As a rule, few varieties of gooseberries do well from cuttings. Mound-layering is the most satisfactory method to employ in propagating them. If I had currant and gooseberry cuttings on hand at this time, I would tie them into bundles of one hundred each, squaring off the butts nicely. I would then dig a pit on a warm, well-drained southern slope and pack the cuttings in this, butts up, about four inches below the surface of the ground, pack the soil well in around and through the cuttings, mound over and protect with mulching material sufficient to keep the frost out of the ground. In spring I would take this protective material off and leave only two inches of soil over the butts of the cuttings and keep this properly moistened. In due time the butts will callus. Before rootlets are thrown out they should be planted. They will need careful watching at this time because rooting follows callusing very rapidly. The bed can be so arranged as to allow of the placing over it in spring of a hotbed sash. This will concentrate heat and hasten the callusing process. C.

VARIED QUERIES.

Will those who have had experience volunteer information on the following:

Has any nurseryman constructed a frost-proof cellar of the hollow, square tile, used so much for walls and foundations and frequently for buildings, and with what results?

What, if any, are the objections to this material for this purpose?

What variety of apple is known as the "Rochester Pie" apple?

What is known of the seedless apples claimed to be grown in different parts of the country, mainly Colorado. What are the merits and defects of the latter and is it thought that it will be a valuable addition to our list of apples?

A READER.

ROSE CHAFER.

Can you give us a formula for killing the old-fashioned Rose bug; we have not the time to look up the entomological name, but you will know what we mean, as it is an old pest, and fairly laughs at the ordinary poisons and Bordeaux Mixture; but there is surely some formula that will effectually destroy them, and our customers, in the Western part of this County have written us for this formula, saying that these

bugs are becoming very destructive to their vine-yards, and also to their Pear trees; one man reports that the leaves were entirely eaten from his pear trees, that we furnished him last Spring.

Will be pleased to hear from you, and thank you in advance for your trouble.

Rochester, N. Y.

INQUIRER.

ANSWER:—Yours of the 2nd inst. to THE NATIONAL NURSERYMAN regarding remedial measures for the rose-bug or rose-chaffer has just been referred to me for reply. During the past season I began studying this old pest, and made a few preliminary experiments. There is considerable more to learn about its life and habits in New York state, and I am not yet prepared to recommend with entire confidence any special spray mixture for it. I am not yet sure that it breeds in the soil around the plants on which the beetles work, or whether its grubs live in uncultivated grass-lands nearby. But I suspect the latter is the case. Therefore, I think that thorough cultivation is one of the best methods of reducing the numbers of this pest. Some experiments which I made in trying to poison the beetles lead me to believe that they can be poisoned, providing they can be enticed to eat the sprayed foliage. I succeeded in killing large numbers of the beetles with an arsenate of lead spray at the rate of five and ten pounds in fifty gallons of water. When I used this poison stronger than this the beetles would not eat the sprayed foliage readily, and hence no more were killed than when the mixture was used with less poison. The indications from my preliminary experiments were that if the foliage was well covered with Bordeaux mixture to which a strong poison, like arsenate of lead, was added at the rate of five or ten pounds in fifty gallons of water, that many of the beetles would be killed and the foliage largely protected from the depredations of the insect. I believe that where the rose chafers do not appear in greater numbers than they usually do in most infested localities in New York State, that young fruit-trees, grape-vines, rose bushes and their other food-plants can be largely protected from their ravages and many of the beetles killed. It will require prompt and thorough work with a strong poison, preferably arsenate of lead, at the rate of about ten pounds in fifty gallons of water or Bordeaux mixture, as this poison will not injure the foliage, and will stick on much longer than other poisons. Get the poison on as soon as the first beetles are seen, and make a second or third application so as to keep the foliage well covered with the poison.

Cornell University.

M. V. SLINGERLAND.

SUGGESTIONS ON STORAGE HOUSES.

To STARK BROS.,

LOUISIANA, Mo.

We are preparing to build a frost-proof building for storing trees, ready for winter shipment.

We have in mind a building which we would like your opinion on as to whether it will keep the trees in good shape. In fact any suggestion you will give us will be appreciated very much.

We are expecting to make a building with 8 foot corner post with a ceiling overhead (8 ft.) line it on both in and outside, then fill the chamber (6 inches) with sawdust thoroughly packed. Pack the trees in one of the three ways, sawdust, sand or heal them in the ground as there is to be no floor in it. Give general suggestions.

Clayton, Illinois.

MISSING LINK APPLE COMPANY.

ANSWER:

Your proposed investment in building is quite an outlay. The value of trees stored is a large one hence you cannot afford to make a mistake. Briefly, we tried cellar storage and quit it on account of fungus, mould, etc. We tried "above ground" houses with sawdust between the walls and quit them on account of dry fungus, etc. attacking both lumber and trees. Now we use air space, walls and roof lined on both walls with tarred felt paper. By making ample air space in the roof or a double air space and having sheds around storage building, we keep out virtually all the frost. We store trees like cord wood, with packing material through the trees and a heavy layer on top. If house is frost-proof but little packing is necessary. If more or less frost gets in then use heavily the packing material on top and next to outside walls. In the nineties we heeled in trees in our sheds in moss and sand. Now we cord up 8 feet high. The fewer windows in main storage house the better, as they let in cold.

Louisiana, Missouri.

STARK BROS. Nurseries & Orchards Co.

Editor National Nurseryman:

DEAR SIR—I wish to go into the nursery business and desire some information.

1. Please tell me, if you can do so, when I may be able to purchase fruit tree seeds.

2. Also mention the varieties of apple, plum, cherry and pear that may be propagated from cuttings without grafting.

3. Why do not people usually graft the peach?

Thanking you in advance for answering the above, I am,

Very truly yours,
W. T. T.

WASHINGTON.

ANSWER:

I would suggest that you consult the advertising columns of the NATIONAL NURSERYMAN for information as to the firms dealing in fruit tree seeds.

There are very few varieties of tree fruits propagated by cuttings. In plums and pears there are notable exceptions, however. Pears of the oriental type are propagated in the South more or less freely from cuttings. This is especially true of Keiffer and Le Conte. The Marianna plum is also grown in large numbers from cuttings treated practically in the same way as currents are handled. In Europe, quinces are grown from cuttings, but more generally from layers. Budding and grafting however, are the almost universal methods of propagating the tree fruits.

Peaches are propagated exclusively by budding, for the reason that the method is cheaper and better than grafting.

C.

A BUNCH OF VARIED INQUIRIES.

Please let the following questions appear through the columns of your paper:

1. Can any firm handle Stark's Trade Mark trees, and not be subject to prosecution?

2. What commission do nurserymen generally pay salesmen?

3. Where may I procure grafting wood of Liveland Raspberry apple?

4. What does it cost on an average to grow apple trees?

5. Can a man start say with about \$500.00 and clear \$100.00 in two years invested in a nursery?

Woodlawn, Virginia.

A SUBSCRIBER.

ANSWER:

1. The legal status of the trade-mark and varietal name is discussed in the October number of the NATIONAL NURSERYMAN, at page 129. The opinions there presented cover the case quite completely, and present more authoritative views than we are able to advance.

2. The commission paid by nurserymen is usually in the neighborhood of 25%. There are a few who pay more, and perhaps some who pay less; but this will represent the average.

3. In the advertising columns of the NATIONAL NURSERYMAN will be found suggestions where grafting wood can be procured. Undoubtedly it can be secured by applying to almost any of the leading nurserymen of the northern states. This summer Russian apple is one of the best of that class.

4. Apple trees are sometimes sold as low as \$4 and \$5 per hundred, but the probability is that the grower makes no money at this price. This subject will be discussed at the forthcoming meeting of the Association of American Nurserymen.

5. This is a question that no man can answer, because the conditions are not outlined, and the most important factor in the whole thing is the man. With small fruits and quick maturing nursery stock, it is quite possible to get a good sized revenue the second year; but in gauging the nursery business as in other businesses of the somewhat slowly maturing kind, a man should not expect to be able to secure definite revenues in so short a time. These revenues can only be measured accurately by a careful stock taking, coupled with sales, compared with expenses and interest on capital invested.

SALT FOR QUINCE BORERS.

Will heavy applications of salt around quinces prevent borers, or is this simply a tree agent fake?

Mt. Kisco, New York.

N. R.

Ans.—Yes, a heavy application of salt around a quince or any other tree might prevent borers, for it would be likely to kill the tree. I can imagine no other way that the salt might prevent borers. I suppose this fake is worked on the theory that the tree takes up the salt and renders the sap distasteful or perhaps poisonous to any insects which may try to eat it. Possibly some of the salt might get into the sap, but surely not enough to prevent borers or any other insect from including the tree in its daily menu. The Quince borer is the same insect that bores apple trees. It is a very difficult insect to combat and no effective preventive has yet been devised. A wrapper of old newspapers or tarred paper closely applied to the base of the trunk will prevent as much as anything we have seen. "Hand grubbing" with a sharp knife or chisel and a wire to reach the grubs in their burrows is the surest method for these borers.

M. V. SLINGERLAND, in "Rural New Yorker."

MINNESOTA WANTS A NEW HARDY PLUM.

THE JEWEL NURSERY COMPANY HELPING.

In the states comprising the upper Mississippi watershed, the plum may properly be regarded as the "King fruit," by reason of the fact that it is the only indigenous tree fruit in that region that possesses naturally the necessary market qualities. Early settlers found in the native thickets plums of good size and flavor; these have been handed down and distributed by nurserymen, and many of them have shown marked improvement under cultivation. But in the struggle to acclimatize the apple, the plum has received less attention than it deserves, a condition perhaps due also in a measure to the human desire for something more than we already have. Now, however, the interest in plant breeding that has been growing apace in the past decade, has renewed the zeal of the plum enthusiasts in the North Central States. At the recent Convention of the Wisconsin Horticultural Society, Mr. Roy Underwood, Secretary of the Jewell Nursery Company, Lake City, Minnesota, stated that his company proposed to offer a cash prize of \$1,000.00 for a new variety that should possess the proper combination of size, quality and hardiness. This offer has subsequently appeared in the agricultural press of the Northwest. The late Professor E. S. Goff, of the Wisconsin Experimental Station was a well known authority on the native plum, having made extensive experiments with it. The veteran pomologist, O. M. Lord, of Minnesota, has also given much encouragement from his life study of the subject. Leading horticulturists in that section now agree that through judicious hybridization, Minnesota and kindred states should in the early process of time have a good big plum, of good market quality that will stand the rigor of their winters.

NATIVE PLUM ADVOCATE.

E. G. Mendenhall offers some of the most practical implements for nursery use that we know of. See his advertisement.

The Presidency of the George Junior Republic is as much coveted among the citizens of that miniature nation perhaps as the great officers are among men engaged in the game of world politics. Billy, after two defeats, was at last elected, but in the hour of his triumph he resigned rather than go into office with a smirch on his honor. The story which appears in the Youth's Companion for February 23d, is called, "The Head of the Republic," and is by Esther Harlan.

What's Going On.

OUR NEW ENGLAND LETTER.

The nursery happenings for this month are nothing out of the ordinary. The weather conditions are such as to prevent digging, and the outlook for commencing such work is not satisfactory at this writing. A few days of good warm weather however, would open the ground very generally. There seems to be a general expectation of a satisfactory spring business, providing the frost conditions enable early digging.

Ellwanger and Barry were awarded the contract for supplying about five thousand trees to the Massachusetts Highway Commission, their price being nearly 33 $\frac{1}{3}$ % lower than those of any other bidders. The bids were confined generally to local nursery firms with the exception of the successful parties, and one other exception.

Importations from Europe up to this time, are coming in highly satisfactory condition, though freight rates are seemingly needlessly high.

New England wholesale nurseries seem to be well supplied with a general assortment of ornamental shrubs, and their quotations compare very favorably with those of the leading middle state nurseries.

The general demand for large and small fruits, other than what is controlled by the travelling tree agent seems to be very limited in bulk, as is reflected by the comparatively small importance of this department in the New England nursery catalogues.

J. WOODWARD MANNING.

BREEZES FROM KANSAS.

There is an apple crop due Kansas this year. The oldest trees even made a fine growth and are in the finest fruiting condition. Then also Kansas needs a good crop about now to boost the apple trade. When the apple fruit trade is boosted it at once reflects on the apple tree trade and we all stand ready to be reflected. In fact we need it in our business.

We are about ready to start a guessing contest. Conditions were never better than now in the seedling trade, to "guess we will" or "guess we wont." One thing is certain though, the fools were not all in the legislature in the West this year. Some of them are in the seedling business.

We venture to guess that there will be more rotten seed sown this year than at any previous time in the trade.

The well known firm of Peters & Skinner will grow out of business in a natural way. Mr. Skinner having purchased the large cellars will conduct the business in the future. We certainly wish the new firm the success which the old firm so well merited.

The volume of trade this spring is not up to normal in Kansas, but there is still time to add to what has already been done.

An early spring seems to be upon us and a jolly good time seems to be coming to the former generally.

Mr. Norris Peters and Charles Peters, both of the old reliable George Peters & Co., of Troy, Ohio, paid Topeka a short business trip since our last communication. The close proximity of the packing season compelled their quick return.

Note and Comment.

Who said quinees!

Winter lingered long in Miss Spring's lap in New York State.

Walnut trees were in blossom in southern California the first week of March. Peach trees at Berchman's, March 24.

Fruit growers on the Pacific Coast using boxes are warned by newspaper rumors that the price of boxes will advance in the coming season.

The United States Senate has voted to exclude flowers from the Senate Chamber. They have not given any explanation of this action.

Now is the spring time of our hustle and hurry made happy and cheerful by the prompt receipt of checks of substantial and portly dimensions.

E. Albertson, Bridgeport, Ind., writes that sales have been good, that most nursery stock is sold out pretty close, digging and shipping going on briskly.

The Alabama-Michigan Fruit Package Company, has been organized by C. M. Edick, Nathan V. Lovell and John W. Bedford. A \$25,000.00 factory will be erected at Troy, Alabama and operations will begin early in the season.

Rather a remarkable thing occurred in the shipping of vegetables during February of this winter. California actually came to the rescue of Florida by sending several consignments of celery during the freeze. Several consignments were sent to Florida on order of commission men in Jacksonville.

TO ASSIST FLORICULTURE IN ILLINOIS.

A bill has recently been presented to the Illinois House of Representatives for the purpose of inaugurating investigational studies under the auspices of the State experiment station, on behalf of the floricultural interests of the state. The appropriation asked for is \$20,000 for 1905, and \$10,000 for 1906, to be used by the experiment station of the University of Illinois, to investigate "improved methods of producing flowers and vegetables under glass, to discover the most economical methods of constructing greenhouses and of heating the same, to ascertain cultural soil and fertilizer requirements of these plants, and the best methods of protecting the same from fungus diseases and insects." Decorative plants for outdoor use in connection with their adaptations to soil are to be studied also.

REFLECTIONS ON CAROLINA-RUSSIAN-NORWAY-POPLAR. WHICH?

The farmers of the North Central States are becoming much confused over these names. You approach one man and he wants you to be sure to book his order for "*North Carolina Poplar*" under the terrible apprehension that the "*South Carolina*" variety will not be hardy enough to stand the winter. The next man will advise you very sagely not to think of planting *Carolina Poplar*, as *Russian Poplar* is far superior to it in every way, particularly in hardiness. In some sections where the Scandinavian population predominates, the *Norway Poplar* is having a run as a quick growing shade tree. There are others also who aver that this much named poplar is nothing at all but the Cottonwood. This certainly raises a lovely condition for the honest nurseryman, as undoubtedly the *Carolina Poplar*, or whatever it is, has come to stay as a popular tree for prairie planting. Shall we illuminate the public at an expense, or go into the general assortment and dig up the nationality required? Here is a condition for which we are in no way responsible. If any one can offer a real easy solution that will place us right, we will be glad to receive it. Doubtless it will sell easier this summer as the *Japanese Poplar*, and we could, without difficulty, accustom our ears to the sound. The suggestion is free.

POPULUS.

NOTE—*Carolina Poplar* (*P. deltoides* var. *carolinensis*) appears to be a form of Cottonwood, but its origin is obscure. In Europe it is called *Swiss Poplar*. Much confusion exists in regard to this form. Who can give us light as to its origin?—ED.

Doings of Societies.

GEORGIA PEACH GROWER'S ASSOCIATION.

This organization met in Macon on February 23d. Much of the time of the meeting was given up to a discussion of transportation questions. A strong resolution endorsing the passage of the railway rate bill now before Congress was put through. The officers elected were Dudley M. Hughes, president, Frank W. Hazellhurst, secretary, P. J. Berckmans, vice-president.

At the last meeting of the Western Association of Wholesale Nurserymen, Peter Youngers, Geneva, Nebraska, was elected president, and D. J. Holman, Leavenworth, Kansas, secretary.

The American Peony Society, A. H. Fewkes, secretary, Newton Highlands, Massachusetts, expect to hold their annual meeting in Chicago to connect with the annual meeting of the American Nurserymen's Association. It will occur just before, or just after the nurserymen meeting, so that the members of the Peony Society may attend both meetings if they so desire. The Peony Society expects to hold an exhibition of cut flowers in connection with their convention. It is probable that an attractive prize list will be prepared.

Reports from Arkansas state that since the trees have thawed out, it has been determined beyond question that the fruit buds are completely killed. In some instances, not only the fruit buds, but the leaf buds and the twigs themselves are badly discolored. Apples and small fruits in that section are in a satisfactory condition.

At the last meeting of the Northeast Georgia Fruit Growers' Association the consensus of opinion regarding the peach crop for the coming season seemed to be that if no unfavorable weather prevailed between now and setting time, about half of a normal crop might be expected.

ORGANIZED FRUIT GROWERS' ASSOCIATION.

What is known as the Norton Fruit Growers' Association, of Muskegon County, Michigan, has filed articles of corporation with a capital stock of \$5,000.00, comprising thirty-six members. One of the prime objects of the association is to purchase crates and fruit packages in large quantities direct from headquarters, at the lowest possible prices. Last year fully 24,000 berry crates were purchased by the parties forming this association. They figured that in buying the crates in wholesale lots they could thereby save a considerable amount. These crates were afterwards sold at a price that made a fair profit, this amount being allowed to accumulate in the treasury and was afterwards distributed among the members in proportion to the number of crates sold during the season. *Barrel & Box.*

RAILROAD TO TURN FARMER.

New Orleans, Feb. 24—The Kansas City Southern Railway has established an experimental farm at Noble, La. The purpose of the farm is to demonstrate to the farmers that fruits and vegetables can be grown in that section with profit. Another object is to make a shipping station of Noble by inducing farmers to locate in the neighborhood. *Fruit and Produce News.*

The *FLORIST'S REVIEW* for March 9 contains a symposium of the question of whether the Lawson carnation is running out. The opinions of a large number of leading florists are offered. While some believe that it is deteriorating, the consensus of opinion appears to be that this degeneration is more to be charged to carelessness in selecting the cuttings, than to an actual weakening of the stock.

There appears to have been a sharp contest in the sale of bananas in New York and Boston markets, during March between the United Fruit Company, which is said to represent the banana trust, and the independent shippers. Report has it that the trade is in opposition to the Fruit Company, but that it hesitates to come out squarely against this organization, fearing that the independent interest may go to pieces, and that they will then be at the mercy of the trusts.

Personal and General.

Stark Bros., Louisiana, Missouri, report an excellent week's business for the opening of the shipping season early in March.

A. D. Field, of Indianola, I., announces that he is closing out his nursery business, and that in the future he will not be interested in nursery catalogues.

Horticultural implements in general and nursery implements in particular will be discussed next month. We hope to interest manufacturers as well as nurserymen.

E. H. Balco, formerly with T. H. Griesa of Lawrence, Kansas, has severed his connection with that firm for the purpose of engaging in business himself in the same vicinity.

Ellwanger & Barry, Rochester, N. Y., present a well printed and beautifully illustrated catalogue of 144 pages. The half-tones are numerous and of excellent quality. The type of catalogue we like to see.

Irvin Ingles, of the Home Nursery, LaFayette, Illinois, has taken a contract to plan and plant the new cemetery grounds at Kenann, Illinois. These grounds consist of a plot of ten acres in extent, and will be landscaped after the most approved system.

We are in receipt of a very neat descriptive catalogue of the Arlington Nurseries, Arlington, Nebraska. This is in the form of a small booklet, nicely illustrated, and containing accurate descriptions of the various lines of fruit and ornamental shrubs offered for sale by this firm. We commend this type of catalogue.

The business manager of the NATIONAL NURSERYMAN, with Mrs. Yates, took a couple of weeks off in the sunny south last month. Jacksonville was the objective point but the southern peninsula was pretty well explored. He reports a good time and recommends a southern trip as an effective means of effacing the coming wrinkles and checking the encroaching gray hairs.

The G. M. Bacon Pecan Company, Dewitt, Mitchell County, Georgia, have issued an attractive catalogue and price list in which is incorporated a treatise on pecan growing. This little pamphlet gives the history of the business and describes its present status, and future outlook. The leading varieties of pecans are also described and figured. It is altogether a very useful publication and should be in the hands of all those who are interested in nut culture.

Mr. Winfried Roelker of Roelker & Co., New York, completed an extensive tour among his New York State patrons a short time since. While on the trip, he visited the experiment station at Geneva, and the College of Agriculture at Ithaca. When at the latter place, his good services as a speaker were brought into requisition, and the address which he gave to the horticultural students of the College at the request of Professor Craig was most instructive and greatly appreciated. Mr. Roelker spoke in general terms but most interestingly on the work of the importer.

MR. J. McHUTCHISON JOINS THE ARMY OF BENEDICTS.

On March 15, at Waverly, Massachusetts, Mr. James McHutchison, of McHutchison & Company, importers of New York, and Miss Grace Elizabeth Edgar were united in marriage. The ceremony was performed in the home of the bride's parents, Mr. and Mrs. W. W. Edgar of Waverly, Mass., by Rev. Reginald Coe of All Saints Episcopal church, Belmont.

The floral decorations were elaborate and elegant. Among out of town guests who attended the reception were Mr. and Mrs. T. B. Meehan, Philadelphia, and Mr. and Mrs. Daniel Wittpen, New York. The honeymoon is being spent in Washington and the south.

The groom is one of the best known of the New York importers. His genial personality has made him a favorite with the nurserymen of the country who will undoubtedly join the staff of the NATIONAL NURSERYMAN in wishing Mr. and Mrs. McHutchison a full measure of happiness and prosperity.

—BAKER BROS., Fort Worth, Texas. Enclosed we hand you \$1.00 for subscription to the NURSERYMAN. We are very much pleased with the paper.

Our Book Table.

Organic Evolution, by Maynard M. Metcalf, P. H. D., professor of biology in the Woman's College of Baltimore, 204 pages, including index. Illustrated with line drawings and half-tones. Price \$2.50. Published by the MacMillan Co., New York.

This book is the outgrowth of a course of lectures given by the author to his students in the Baltimore College. The volume contains a discussion of evolution from the standpoint of the zoologist as well as the botanist. The author does not lay claim to originality, either in the form of expression or deduction, but presents in simple understandable language the current theories regarding the progress of plant and animal life. In Part I, the theory of organic evolution is discussed. In Part 2, the phenomena explained by the theory, are treated with considerable fullness. An interesting chapter is that upon "Man in relation to evolution."

One is struck by the apparent simplicity of language and arrangement. This is in marked contrast with many of the books on evolution which have appeared in recent years. We commend this as a volume which should occupy a useful place among reference works on this interesting and intricate subject. The book is well printed and fully illustrated.

Japanese Floral Calendar. By Ernest W. Clement. Published by the Open Court Publishing Co., Chicago, Ill. 57 page boards. Profusely illustrated.

This is a dainty brochure intended to show the nature-loving characteristics of the Japanese people. They give particular expression to their feelings by taking a holiday simply for flower viewing. There are during each year a number of days for leading members of the floral type. The book contains an artistically arranged delineation of the following days: Pine, Plum, Peach (The Doll's Festival), Cherry, Wistaria, Iris, Morning Glory, Lotus, Manakuse, Maple, Chrysanthemum, and Camelia Day.

Coming just now when the Japs are in the public eye owing to their thrilling struggle with the Russian Empire, a contrubition of the floral instincts of this interesting people will undoubtedly prove popular.

JGoff & Mayne's First Principles of Agriculture. By Emmet S. Goff, late Professor of Horticulture, University of Wisconsin, and L. D. Mayne, Principal School of Agriculture, St. Anthony Park, Minn. Cloth 12mo., 256 pages. With illustrations and colored plates. Price 80 cents. American Book Company, 100 Washington Square, New York City.

Each year sees agriculture advance a distinct step in its development as a pedagogical study. One of the chiefest reasons why agriculture has not found a place in the schools is that it has been considered to be an unteachable subject. Then again, there are few teachers qualified to present it. Its unteachableness is largely due to the fact that it is a composite science made up of a number of the natural sciences. It is not as accurately defined and clear cut as mathematics; it cannot be described in formulae like chemistry and physics, but distinct advances are being made and the book mentioned above, will do much towards placing the study of agriculture upon a rational and workable basis. It is modeled very largely after the book entitled, "Principles of Plant Culture" by Goff. Indeed, the major portion of the volume bears upon plants and their management. Some other valuable chapters have been included, for instance, that upon insectivorous animals. Here is a subject which ought to be studied thoroughly during the school experiences of every boy and girl. They would realize the value of many of the birds which are now so promptly destroyed and instead of making the lives of these farmers and co-workers miserable, would do something to encourage their propagation. The book is distinctly didactic but the experiments suggested in connection with the treatment of each subject remove that criticism to a large degree.

—W. A. YATES, Brenham, Texas. Enclosed please find \$1.00 for renewal to the NATIONAL NURSERYMAN which is worth many times its cost to everyone interested in the growing and handling of nursery stock. With best wishes for the prosperity of the NATIONAL NURSERYMAN and all its supporters.

REMARKS ON THE CULTIVATION OF CATALPA GROVES.

Preserve only one sprout and the growth will often be ten feet or more the first year. In a catalpa grove growing on the Station farm are trees planted in 1901 and cut back to the ground in 1903, which made a growth during the summer following of $11\frac{1}{2}$ feet and have a diameter at the base of $1\frac{1}{2}$ inches. Trees in the same grove cut back in 1902 are $12\frac{1}{2}$ feet tall and $2\frac{1}{2}$ inches in diameter. In the same grove are trees which were straight and did not need to be cut back that have made a growth in the three years of 13 feet in height and $2\frac{1}{2}$ inches in diameter. Another season's growth will make the trees cut back in 1902 equal in size to those not cut back. Cutting trees off close to the ground does not make any material difference in the date of harvesting.

It is the only way to insure trees with straight trunks and it has the further advantage of reducing the amount of pruning, because there are but few side branches on sprouts which spring from the stumps of trees that are cut back.

The best time to do all pruning is late in winter or early in spring, although no harm will be done by cutting off very small side branches in early summer. The removal of much foliage in summer time, however, is harmful to the trees.

Regarding the distance the trees should be apart in the permanent plantation, it is difficult to lay down a definite rule. Much depends upon the purpose for which the trees are intended, also upon the soil, and we need more facts before speaking too positively on this point.

The trees may be set quite near together, if thinned at the proper time, but it is a safe rule to adopt in practice, never to plant so many trees on the ground that, when thinning is to be done, the trees which are taken out must be thrown away. Trees may be set as near as 4x4 feet and will grow vigorously for two or three years, but when planted so closely as this, thinning must be completed before those which are taken out are of marketable size.

This is not only a waste but occasions needless labor and is harmful to the permanent trees. Whether 8x8 feet or 10x10 feet is the proper distance is not surely known, but if set 8x8 feet it is known that within ten years many of the trees will make from one to three posts. When this time arrives it is better to begin thinning."

In the thinning some would take out every other row, while others would, in addition, take every other tree from the permanent row also, or three-fourths of the original number. Others would take the weakest of trees, regardless of where they stand. Doubtless the practice must be regulated by the conditions and according to the purpose for which the grove is intended, but according to our present knowledge 8x8 feet appears to be a safe distance, provided thinning is begun early enough. If posts alone are to be harvested all of the trees may be cut at the same time, if desired, and the sprouts allowed to grow to make another crop.

If only a part of the trees are cut for posts and the others left for other purposes, the sprouts from the stump will be less vigorous than if all were cut.—*Ohio Bulletin*.

PERSONALLY CONDUCTED TOURS TO

California, Colorado, Utah, Oregon, Washington, Arizona and Mexico Via the Wabash System, will move in February and March. For full information write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A. Buffalo, N. Y.

LAW GOVERNING THE SUPPRESSION OF INSECTS AND PLANT DISEASES TO BE AMENDED.

There is a bill now before the New York State Legislature which greatly extends the powers of the Commissioner of Agriculture in dealing with noxious insects and parasitic diseases. This bill gives the commissioner power to enter the premises of any fruit grower, condemn and destroy, infested fruit or other trees and collect the cost of destruction or removal from the owner of the trees. "The owner * * * shall pay to the commissioner of agriculture for the benefit of the state the cost of such treatment or destruction, including cost of removal, as the same shall be certified by the commissioner of agriculture."

This is drastic certainly. Its wisdom may be questioned because the efficiency of the act is so intimately associated with the judgment of the interpreter that it is easy to imagine how hardships might arise by enforcing it rigidly. A hearing was set for March 28th.

RAILWAY FACILITIES TO WEST BADEN SPRINGS.

Nurserymen will soon begin to study ways and means of attending the 30th annual convention of the American Association of Nurserymen, which occurs at West Baden Springs on the 14th of June next. The New York Central lines and the Monon Route will give a through car service from Rochester, N. Y., to West Baden Springs. The special train will leave Rochester on June 12th at 9:45 p. m., arriving at West Baden 5:55 p. m., June 13th. The fare is $1\frac{1}{3}$ for the round trip from Rochester. Price of berths from Rochester through to West Baden is \$4.00. State rooms can be secured for \$14.00. The train will go by way of Green Castle, Ind., where it will arrive at 12:44 p. m., on the 13th, leaving at 2:28 p. m. It is very gratifying to know that such excellent provisions for the comfort and convenience of those who attend the convention are available. This should assure a large attendance from points in Central and Western New York.

THE EXHAUSTION OF NURSERY LANDS.

From mere observation we would say that it seems the exhaustion is only temporary at times and not real. We notice we get excellent crops of corn, and millet following trees, although in the fore part of the season while plants are small they often appear weak and yellow, but recover from this as the season advances and seldom fail to make heavier crops than when they follow ordinary farm crop.

We grew an excellent 40-acre orchard on nursery cropped land.

We always try to get the very best land obtainable, and feel that we can afford to pay about $1\frac{1}{2}$ the price paid when ordinary crop is grown. We consider the clean, thorough, deep cultivation we give of great advantage to the land and we have noticed that the corn crop for two or three years showed better growth in the section of the field where we had grown a crop of forest seedlings and given deep cultivation when seedlings were dry than elsewhere.

Beatrice, Nebraska.

J. A. GAGE.

—J. P. SINNOCK, Moberly, Mo. Please find enclosed P. O. money order for \$1.00 for subscription. I am very much pleased with the paper.



From the Williamsport & North Branch
Railroad Eagles Mere Booklet

MR. TROY'S CATALOGUE—planned and written by us—is intended to reach people of culture, refinement and money, who would not look twice at a common “colored-plate” chromo catalogue cover before dropping it into the waste-basket.

Some nurserymen overlook that waste-basket business!

In these days of much printed advertising matter, the busy man who has money to buy has little time to waste. Usually the first five seconds after he sees your catalogue decide whether it goes under the desk into the waste-basket, or is retained for reading and possible ordering. If, then, you did save some money on that cheap tin-can catalogue, which cost only 6 or 8 cents on its way to the waste-basket, what good is it to YOU? It is 6 or 8 cents and the postage and opportunity wasted!

We make catalogues for that first five seconds. They cost more, but they don't go into the waste-basket, and that is why they are the cheapest catalogues in America.

If interested, write us, telling what you want to sell, and to what sort of people. DON'T ask us for (a) colored plates, (b) for “stock” catalogues, (c) for a “catalogue of our electros for nurserymen.” We have none of these things; we don't make, buy or sell plate-books or electros.

We had on March 21, 1905, just 7,995 horticultural photographs, the largest collection in the world, probably. It increases about 125 a month; it enables us to make catalogues, booklets, price-lists to SELL trees and plants and fruits and vines.



J. HORACE MCFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA



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and Mount Hissarlik Nurseries, New Rochelle, New York, by*

J. HORACE MCFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA

[OVER]

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

Copyrighted 1903 by The National Nurseryman Publishing Co., Incorporated.

Vol. XIII.

ROCHESTER, N. Y., MAY, 1905.

No. 5.

A Symposium on Implements and Tillage

BY LEADING NURSEYMEN.

The tillage season is again upon us. How have we prepared the ground for the spring settings of cuttings, grafts, and trees? Is subsoiling desirable under all circumstances or is it a practice for special types of soil? What kinds of cultivating implements do you find best? These and other closely allied questions are answered in the interesting group of replies which follow. On the matter of the desirability of subsoiling there is a sharp diversity of opinion. Of the fifteen, eight favor the use of the subsoiler, six have either given up its use, or their soil being naturally loose, does not seem to need subsoiling.

There appears to be no uniformity of opinion in regard to types of cultivators. Many men have devised special types of implements to meet the peculiar character of soil and crops.

The striking feature of the discussion is the unanimity of opinion in favor of thorough preparation followed by a persevering system of rather shallow surface tillage. The following questions were asked of a score or more of growers of nursery stock the country over and their answers are appended.

QUESTIONS.

- 1—What has been your experience in using subsoiling implements?
- 2—What type of cultivator do you find best adapted to your soil?
- 3—Name a set of implements well suited to the working of your soil and the stock you grow. Describe soil.

ANSWERS.

NEW YORK.

We are so very busy at this time that we cannot go into the matter in as much detail as we would like to.

As to question (1) would say that in breaking up our land for nursery purposes, that is, in fitting land that has been used simply for ordinary farming before we plant trees we always subsoil, and find great advantage in so doing. It gives better drainage, helps to subserve moisture, and as nurserymen now have to use a tree-digger, we are able to remove stones and rocks which hinder the work of the digger. We have a heavy soil mostly clay with gravelly subsoil.

(2) In cultivating our two year old trees we use the old "Canandaigua Wooden Frame" one horse cultivator. For young stock that is not over $\frac{3}{4}$ foot in height, we use the two horse wheel cultivator, and have found the Planet Jr., as satisfactory as any of them.

(3) We use a one horse plow in our nursery stock fully as much as a cultivator; usually following the plan of plowing up to stock, and then following with a cultivator to work the soil down.

Geneva.

W. & T. SMITH COMPANY,

SUBSOILERS NOT USED.

(1) It has been many years since we used the subsoiler in preparing land for nursery stock. We failed to discover any advantage by subsoiling, hence our action as above. Were we operating on a tenacious clay soil we would then subsoil.

(2) The wheel cultivator we use wherever we can, or until the trees get too large; after that, the ordinary farm kind. When the soil becomes very hard, which is not often the case, we use the spike tooth.

(3) Clark's Double Action Cutaway Harrow. Munnsville three horse plows; Spring tooth harrows, followed by a smoothing harrow; roller; cultivators as above; one horse plows.

Soil gravelly loam, with clay subsoil.

Geneva.

THE R. G. CHASE COMPANY.

(1) We do not practice subsoiling, but plough as deep as three horses can turn a furrow.

(2) I am using a Munnsville New York Cultivator.

(3) This Munnsville Cultivator and a one horse plow works well between the rows of trees, and we keep them going as conditions may require throughout the whole growing season.

Our soil is a good rich loam with a heavy clay subsoil.

Batavia.

NELSON BOGUE.

(1) We discontinued subsoiling some years but last year again tried it and where subsoiled obtained a little larger growth; and pear and apple held leaves fully until very late. Have tried it again this season.

(2) Planet Jr. two horse; and for one horse we like the old style wooden cultivator as well as any.

(3) Plow, Disc harrow; drags and roller follow cultivator. We seldom if ever use spring tooth. We think it operates too hard for work done.

Various grades of loam; no clay.

Seneca.

RUPERT & SON.

PENNSYLVANIA.

DEEP SUBSOILING, THOROUGH TILLAGE.

(1) Up to this year we have not used subsoil plows to any extent as the nature of the soil we have planted on did not seem to require it and we have had satisfactory results without it. From this on we shall plant freely on ground with a heavy clay bottom and we prepared this ground last fall by subsoil plowing. We use a large two horse Syracuse plow, the largest size manufactured and follow each furrow with as deep a subsoil plow of the Syracuse type as we can

get, using three of our largest horses on it and putting it down to the beam. In this way we get a depth of about 18 inches. Would go even deeper if it were possible. We expect to gain in two ways by doing this. First we believe that we cannot break up the bottom too much in order to get a good root system. Second we get a better drainage, as this particular ground is somewhat wet in the spring. After thoroughly looking into the matter we believe we would have secured even better results with our stock had we used the subsoil plow in all parts of our nursery and shall do so when we replant any of the old ground now in trees and shrubs.

(2) We only use one horse cultivators, some of them of the Syracuse make and others the Planet. The latter we have adopted within the last two years. They are stronger and more rigid than the other makes as far as we have seen them and seem to last longer. We use cultivators with a wide tooth, reversible, and as when we keep our soil loosened very deep we get good results. Our method of cultivation is, we think, somewhat different from that practiced by most nurserymen.

(3) We do our first cultivating in the spring with a one horse Syracuse plow, running twice in a row and plowing away from the stock, throwing the soil to the centre of the row; we follow this a few days later with a cultivator, then again with the plow, and so on all summer. In that way we keep our soil loose and mellow. If we don't do that our soil is apt to bake and by midsummer we cannot get a harrow deep enough for practicable purposes. We find it much more economical too.

At this writing it is too early for us to say much about Spring trade. So far it has been very satisfactory and we believe fully up to the last spring, but we are now in the middle of our shipping season and orders are still coming in very satisfactorily. We have no complaint to make on this score. Prices are too low, but we think they are at the bottom and hope and expect a substantial rise by next fall. We would all do better if we raised less stock and got more for it and we are in hopes that nurserymen will realize this and make a general advance next season.

Dreshertown.

THOMAS MEEHAN & SONS, INC.

SUBSOILING NOT NEEDED.

(1) We abandoned subsoiling 25 years ago—not satisfactory on our soil.

(2) Have never been able to decide. We use mostly one horse cultivators.

(3) We use ordinary plows and harrows.

Soil, generally a light loam.

West Chester.

HOOPES BROS. & THOMAS.

ILLINOIS.

In my business, growing and cultivating small evergreens in narrow rows, I use the Gem hand cultivators very extensively. I find it the best hand cultivator for that purpose. Horse cultivator, the Diamond Tooth, five shares, are used except late in season when we do not wish to stir the ground very deep, then a drag tooth cultivator is used. The Gem hand cultivator has several sets of scufflers, share plows and teeth and is adapted for all seasons and for all purposes where a narrow cultivator is used.

Dundee.

D. HILL.

OHIO.

SUBSOILING INDISPENSIBLE.

(1) Subsoiling is indispensable with us, especially on our heavy clay soil, it not only opens up the hard pan below the surface thereby making a better system of drainage, but makes the ground easier to plant the stocks in and works better the whole season.

(2) Two horse cultivators on all small stuff such as one year buds and seedlings. Various kinds of one horse implements on delicate small stuff and large trees.

(3) Soil of various kinds, including good stiff clay, clay loam, gravel loam, and black land. We favor and use different kinds of Planet Jr. tools to good advantage for cultivating. We prefer Oliver Chilled plows for plowing.

Perry.

L. GREEN & SON CO.

KANSAS.

(1) We do not find subsoiling a success with us. Have two good subsoilers for sale.

(2) We find level cultivation the most satisfactory.

(3) We consider the Planet Jr. implements well suited to our use. We also use an Ohio cultivator which does good work.

Our soil is a heavy black loam.

Winfield.

COOPER & MONCRIEF.

INDIANA.

(1) When used have found them very profitable.

(2) For constant use we like the spring tooth cultivators but find it necessary to use a number of different cultivators owing to condition of soil and work to be done. Good judgment must dictate.

(3) Our soil is a sugar tree clay inclined to be a little heavy. We use in spring small bar plows in loosening ground, following with shovel cultivators of size suitable for condition of soil and results desired, then mostly spring tooth or small Bull tongue cultivators, or other small tooth implements.

The Planet Jr. people make a very desirable line of tools adopted for all kinds of work.

Bridgeport

ALBERTSON & HOBBS.

IN THE SOUTH.

ALABAMA.

SUBSOILERS NEEDED.

(1) We use an Avery No. 6 subsoil plow and think our nursery ground cannot be well prepared unless subsoiled.

(2) For trees four feet and up we use the Little Giant cultivator, made by the Ohio Cultivator Co., Bellevue, Ohio. We change the width of the machine and the width of teeth every time we recultivate. Sharp teeth are always put on.

For seedlings or trees under four feet we use a Sulky cultivator with ten spring teeth. The gangs can be set so as to work the ground shallow near the tree, and deeper toward the center of row.

Three or four times during the season we run a Disk cultivator to break the ridge left by cultivator teeth beneath the dust mulch.

(3) We use the John Deer plows and have a set of them with different mould boards. For mellow soils a long low mould board, for heavier soils a shorter steep mould.

When breaking ground one day after the plow, we run a Disk harrow, both sides set to throw out, we half double back, thus cutting both ways. The Disk we use is made by

the D. M. Osborne Co., Auburn, N. Y. We follow the Disk with an Acme spring tooth harrow made by D. H. Nash, Millington, N. J., or a spike tooth drag harrow, any make.

The roller we prefer is the Cyclone Pulverizer and Roller, made by the Ohio Cultivator Co., Bellevue, Ohio.

We cultivate with the idea of forming a dust mulch of two or three inches, and as flat as possible that we may preserve the soil moisture and keep the capillary attraction in the most favorable condition.

Our soil is classified by the U. S. Bureau of Soils as "Hagarstown clay" i. e. it is a red clay with a stiff red clay subsoil three to ten feet in thickness. With the use of cow peas, and if we may say, our method of cultivation, it becomes quite loamy, loose, and productive. It is comparatively level.

Huntsville.

ALABAMA NURSERY CO.

MARYLAND.

SUBSOILER NOT NEEDED.

(1) Our soil does not require subsoiling.

(2) Iron Age or Planet Jr.

(3) Syracuse or Oliver Chilled Pows, 2 horse, Girl Champion, one horse plow, straight handle on left hand side. Sulky, two horse cultivator, light two horse harrow, spike tooth cultivator.

Soil, sandy loam, clay subsoil.

Trusting this information may be what you want.

Baltimore.

FRANKLIN DAVIS NURSERY CO.

GEORGIA.

(1) When land has been thoroughly subsoiled the plants have a better root system and are more resistant to drought. All stiff soil should be thoroughly subsoiled before being planted.

(2) Syracuse Expanding Lever Cultivators, with points varying in widths from one to four inches.

(3) Syracuse Gang plow, two horse vulcan, one horse national turn plow, two horse subsoil roter plow, made after our own pattern. This plow is equipped with a long (bull tongue point) and is the best implement of the kind for subsoiling in the furrow, where an extra depth of subsoiling is needed.

The Clark Cuttaway, Ames and Syracuse folding harrows are the best for our purpose. Two horse cultivators, one horse Syracuse cultivators. When the ground has a crust and is baked we find the fourteen spike tooth Syracuse cultivator an indispensable tool for breaking this crust. It is also the best implement for running through nursery rows just after the planters.

The implements as above mentioned we find admirably suited to the cultivation of the general line of nursery stock grown by us.

We have a great variety of soils in our nurseries, viz., rich bottom lands which become very hard unless carefully watched and cultivated just at the right time; also stiff red clay, sandy loam and heavy loam soils.

Augusta.

P. J. BERCKMANS CO.

IOWA.

(1) We used subsoiler to good advantage long ago but since we dig everything with Tree Digger now don't need subsoiler.

(2) The Planet and Common Sense Cultivators are the best with us.

(3) We grow most everything in the Nursery Line. Our soil is heavy clay. The small Tooth Cultivators and Planet type seem to be about all we want.

Davenport.

NICHOLS & LORTON.

KANSAS.

(1) My experience with subsoiling implements is very limited. The soil in the Kaw Valley does not demand it. We prefer plowing to the depth of from 10 to 14 inches for seedlings.

(2) For general nursery work the Spring tooth. We cultivate shallow but thoroughly.

(3) Our soil is a chocolate colored loam, more or less sandy, very deep.

For seedlings, we make our own cultivators that work the surface well. For trees—two year old or more, the lister and diamond plow; for smaller stock the spring tooth or some good make of shovel cultivator.

North Topeka.

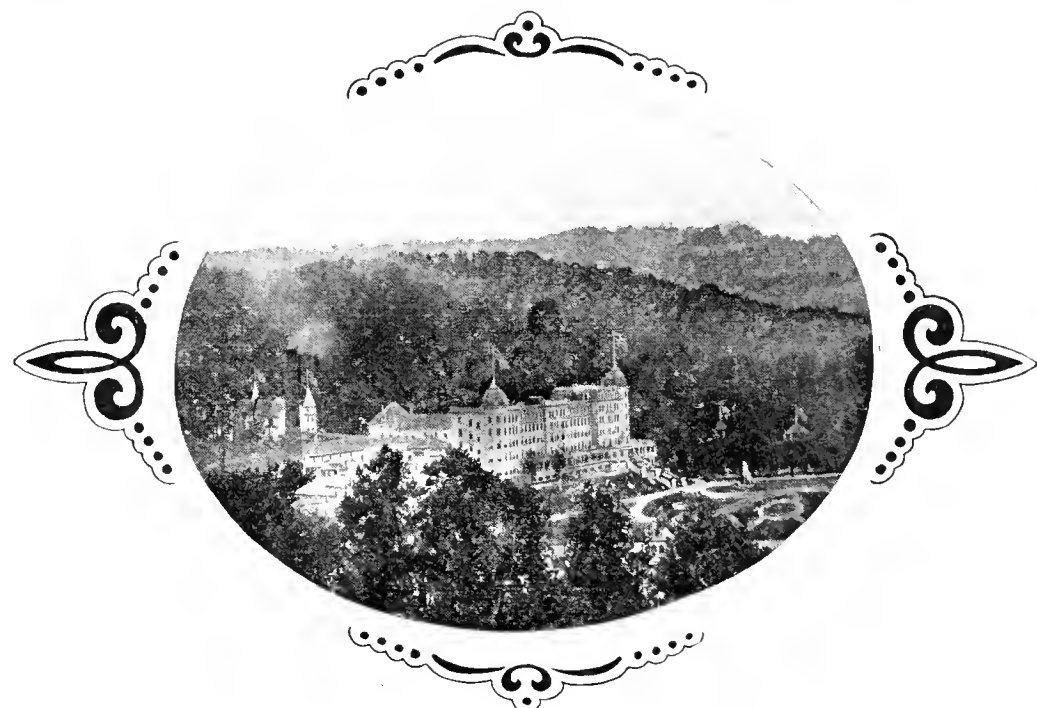
A. L. BROOKE.

ENTERTAINMENT AT FRENCH LICK HOTEL.

Members of the American Association of Nurserymen who reach West Baden Springs on Tuesday afternoon or evening (June 13), are invited by Mr. Taggart of the French Lick Hotel to partake of his hospitality. A reception at this hotel is provided for all members and their friends who are in attendance at the meeting. This acknowledgement on behalf of the French Lick Hotel of the Association is graceful and the courtesy will undoubtedly be accepted and much appreciated by the members who are able to reach the meeting place by that time.

FRENCH LICK SPRINGS HOTEL.

One of the ideal spots for tired natures to go for rest, quiet and recuperation is French Lick Springs, Indiana. This world famous resort nestling in the hills of Orange County



antedates the history of the State of Indiana, by many years, and its beginning is almost contemporaneous with the French Settlement of old Vincennes. When first these springs received mention for their wonderful saline deposit, they were then the resort for deer and buffalo coming in great herds from the forest to "Lick" of the salty waters. It is from this fact and the early French Settlement that the name "French Lick" derived its name.

A LINE FROM PRESIDENT KIRKPATRICK

PROGRESS IN TEXAS.—WEST BADEN MEETING.

Texas nurseymen are alert in growing an increased stock of superior trees and plants of improved varieties for the increasing trade in the southwest. A large number of improved varieties, new strains of fruits, are being originated and introduced to the exclusion of older inferior sorts. Many thousand hybrid and crossed peaches, plums and other fruits will be fruited this season and valuable things are anticipated.

Our legislature is doing what it can in giving us some drastic inspection and fumigating laws. Men who make and execute our laws, are frequently of that class who are at the ragged edge of business and it is not surprising that they often take hold of the wrong end of the problem in making laws.

We have prospects for an extra large yield of fruit with little damage from insect or disease.

The President's late visit to Texas was the occasion of the most notable ovation ever seen here. Mr. Roosevelt could enlist one million rough riders here in his next regiment!

The approaching meeting at West Baden, Ind., on June 14-16, of the National Nurserymen promises to make a new record both in attendance and in interest. The many new or special features of this coming session will appeal strongly to many who have not attended regularly heretofore. Mr. Moore on "Inoculation of the Soil," Mr. Hedgecock on "Root Tumor," or "Root Knot," Mr. Stringfellow on "New Horticulture" and others will repay many times over to all investigators, for time and expense of their attendance.

The many new acquaintances of intelligent, enthusiastic and noble men and women; the comfort, beauty and grandeur of the hotel and its surroundings, the great banquet of feasting, music and oratory, the show of new fruits, rare flowers, and other horticultural products, the unexcelled opportunity of rest and recuperation, the polite and pleasing hotel service, the endless variety for entertainment and amusement together with the excursion to Mammoth Cave; these and many other attractions will furnish an endless round of interest and pleasure to the occasion.

Horticulture is rapidly winning increased interest and importance in this and other countries.

McKinney, Texas.

E. W. KIRKPATRICK.

VISIT THE VINCENNES NURSERIES.

HEARTY INVITATIONS EXTENDED.

EDITOR NATIONAL NURSERYMAN.

SIR:—There have been quite a number of Western Nurserymen writing me in regard to stop-over privileges at Vincennes on their way to West Baden to the convention to be held there June 14th, 1905. I have taken the matter up with the B. & O. R. R. Co., and have made the following arrangements, providing we can get up a party of twenty or more.

Parties arriving in St. Louis in afternoon or night may take a sleeper at Union Station any time after 9:30 p. m., June 12th. This will leave on the regular train at 2:05 a. m., arriving in Vincennes at 6:00 a. m., where the sleeper will be side-tracked and you may get up when your rest is over. (Sleeper berth will only be \$1.50 or \$1.75 each for two in a berth.)

After breakfast the party will be taken in charge by the Vincennes Nurserymen. After a drive over the two nurseries, a visit will be made to the city, which is the oldest in the Northwest Territory. It was settled in the year 1702 and is a very beautiful city containing many points of interest.

We will leave here at 12:55 p. m. for West Baden and arrive there at 5:55 just in good time for supper Tuesday evening. We will join the New York delegation at Mitchell and all arrive at West Baden on the same train.

Can you not plan to be with us? Those who wish to do so, will please drop me a letter, stating how many berths you wish and I will reserve them, or rather arrange for same. Would be pleased to hear from you soon, so that we may guarantee the R. R. Co. the required number to insure a special car.

Come, *bring the ladies* and enjoy yourselves. We want to make this the largest attendance in the history of the Association. Yours very truly,

Vincennes, Ind.

W. C. REED.

Editor NATIONAL NURSERYMAN.

Arrangements are being completed by which all nurserymen passing through Vincennes enroute to the meeting at West Baden next June can get a stop over here. We trust a number will take advantage of this and pay us a visit.

Come to the West Baden meeting in June and bring your wives. You will not only get the benefit of the convention but you also visit one of the finest watering places in America.

Vincennes, Indiana.

Yours sincerely,

H. M. SIMPSON & SONS.

Doings of Societies.

FRUIT GROWERS OF GEORGIA FROM LOCAL ORGANIZATION.

THE PIEDMONT FRUIT COMPANY.

At Baldwin, Ga., the first local organization has been formed for the purpose of marketing the peach crop to the best advantage. Mr. A. M. Kitchen is the President and Mr. Ethan Philbrick the Secretary.

On March 2nd a meeting was held at Cornelia and by-laws and articles of incorporation were drawn up. A petition has been filed for a charter which will make them a corporate body under the name of Piedmont Fruit Company. The capital stock of this company is \$5,000.00 which has all been subscribed and 10% paid in to insure the granting of a charter.

This company intends the first of the year to hire a manager who will be competent to handle the entire peach crop of that section in an intelligent way, and insure growers against placing their peaches where they will come in contact with a glutted market.

The Piedmont Fruit Company comprises the counties of Habersham and Banks. Headquarters will be at Baldwin, Ga. It is hoped that many other local organizations will be formed which may eventually agree to work in harmony with one another.

The following quotation from a letter written by A. M. Kitchen, President of the Piedmont Fruit Company, explains this matter very clearly:

"It was the unanimous opinion of the fruit growers attending the meeting at Macon that some form of organization of local companies is necessary for the intelligent marketing of our crop and this idea that I suggest has for its object, when we are fully organized over the State, viz:—the employment of a State Secretary of the present Fruit Growers' Association, to whom each local company, through its manager, who will report every morning the number of cars for shipment each day. It will be the duty of the State Secretary immediately on the receipt of these reports to wire back to all the local managers the number of cars that will be shipped from every section of Georgia that day, and to give to the local managers directions for shipments or diverting so that we will avoid glutting the various markets."

The officers of the Piedmont Fruit Company have been free to extend an offer of assistance to all communities where local organizations will be formed. It is hoped that many such will organize in order that the benefit of a centralizing of the peach interests of the State may be insured.

R. I. S.

LEGISLATION.

NURSERY LEGISLATION IN WEST VIRGINIA.

The Legislature of West Virginia passed a bill on February 18th, which forces all nurserymen, dealers or growers, who employ salesmen or agents, and sell trees and vines in that state, to take out a license in some county of the state, which license may be secured from the assessor on payment of a fee of ten dollars. On taking out the license, the dealer or grower shall file a list of salesmen operating in the county or state. Any person violating the section shall be fined not less than \$25 nor more than \$100, and may be confined in jail, not to exceed six months. All salesmen are required to carry certificates from their employer, showing that they are duly authorized to do business for him. Failure to exhibit a certificate is punished by a fine of \$10 upon conviction.

Section 3 of this act attempts to cover the false or fictitious naming of varieties. Section 4 states that the agent who shall deliver trees without the consent of the purchaser, from other nurseries than that which he represents, shall be deemed guilty of a misdemeanor. This bill goes into effect on May 18th. Nurserymen who are doing business in West Virginia will do well to acquaint themselves fully with the provisions of Senate bill, No. 62.

OPINIONS OF ATTORNEYS

The above act of the Legislature of West Virginia was submitted by Mr. Pitkin to the attorneys in charge of matters connected with the legislative committee of the Association for an opinion. Messrs. McGuire and Wood have transmitted in substance the following opinion to the chairman of the legislative committee: "The attorneys point out that the punishment for the misdemeanors outlined in this act are visited upon the agent and salesman, and not upon the nurseryman. The only acts of the principal that are made misdemeanors are false labelling and substitution." The attorneys further say that the provisions of sections 1 and 2, imposing an annual license of \$10, and requiring the filing of license of agents, are in their opinion clearly unconstitutional and void, in so far as they apply to nurserymen who are not residents of the State of West Virginia. "The fee imposed is simply and solely a tax. It is not incidental to any proper purpose, to which the police power of the State might be invoked. If it is valid legislation, then the Legislature of the State of West Virginia may at its next session increase the tax to \$50 per year, and so on until it will not be possible for nurserymen to do business in West Virginia. Certainly this is a regulation of interstate commerce is so far as it applies to non-resident nurserymen."

"The practical difficulty which the members of your association will meet, will be that of engaging agents in the State of West Virginia, except upon compliance with this invalid statute, until such time as by an authoritative decision its invalidity has been judicially declared; and while it may be easier to submit to blackmail to the extent of \$10 per year, we have no doubt that ultimately the statute in question will be held void."

Mr. Pitkin has the following to say in transmitting the opinion:

EDITOR NATIONAL NURSERYMAN.

DEAR SIR:—In behalf of the committee on Legislation of the American Association of Nurserymen, I beg to hand you

an opinion from Messrs. McGuire & Wood, Attorneys of this city, who have had charge on behalf of the Legislative committee of matters pertaining to the license laws of West Virginia and other States, and which I trust you can print in your May issue.

The opinion of our Attorneys covers the situation fully, and in talking with them it has seemed to the writer better to let the present law stand without contest and pay the annual license fee of \$10. The tax is not heavy and while no doubt the law is unconstitutional and could be beaten in a test case, still if that action were taken and with that result, it might lead to the enactment of legislation in the future, which would be even more burdensome, and under which it would be harder for the nurseryman to do business. While the attorneys have not covered this in their formal opinion, it was their verbal suggestion that it will be best to let this law stand without attack, and after going over the matter thoroughly I would concur in their opinion.

Yours truly,

Rochester, N. Y.

WM. PITKIN.

FREIGHT CLASSIFICATION.

EDITOR NATIONAL NURSERYMEN.

DEAR SIR:—It may interest the Committee on Transportation of the A. A. N., and your readers, to learn that the official classification on "*imported dormant plants and seedlings*," in cases, has been fixed since about beginning of February at "*third class rates*" to Chicago and points west thereof; based on 50 cents the 100 pounds rate to Chicago. East of Chicago second class rates continue, wherever they are lower than 50 cents to the 100 pounds; but where higher, only the 50 cents rate will apply. A certificate must accompany each shipment, verifying the goods to be imported stock, shipped from the dock within ten days after landing. We add a copy of such an official certificate at foot of this. Some concession you see has been made to the request for lower rates by the A. A. N. transportation committee supported by the personal appeals of us Eastern importers. Continued strong action on the part of the A. A. N. should bring further concessions.

Yours very truly,

New York.

WINFRIED ROELKER.

The following is a form of the certificate:

IMPORT CERTIFICATE.

We hereby certify that the property covered by this receipt was imported in the S. S. from on arriving at this port on that it has not been in any private warehouse but is carted to R. R. Station direct from

AUGUST ROLKER & SONS.

AMERICAN ASSOCIATION OF NURSERYMEN.

AT WEST BADEN, INDIANA.

JUNE 14TH, 1905.

For the above occasion we have arranged to run a *special Pullman Sleeping Car through* (without change) from Rochester to West Baden, Indiana at rate of \$4.00 per berth, and room at \$14.00 via New York Central; Lake Shore and Michigan Southern, Big Four Route and Monon Route.

JUNE 12TH, 1905.

LEAVE ROCHESTER, 9:45 P. M.

ARRIVE WEST BADEN, INDIANA, 5:55 P. M., JUNE 13TH.

For rates, Sleeping Car reservations or any other information, apply to Mr. J. C. Kalbfleisch, D. P. A., N. Y. Central, Rochester, N. Y., or to Mr. Chas. L. Yates, care NATIONAL NURSERYMAN, Room 205 Cox Building, Rochester, N. Y.

The National Nurseryman

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., MAY, 1905.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, E. W. Kirkpatrick, McKinney, Tex.; vice-president, C. L. Watrous, Des Moines, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.
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Programme—Harlan P. Kelsey, Boston; Herbert S. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.
Publicity—Ralph T. Olcott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.
Exhibits—R. C. Berckmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.
To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

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NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
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PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.
PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.
NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

Many of our readers are familiar with the story of the "Awakening of Harrisburg" as told in *The Outlook* and other magazines. It is full of interest, and shows the possibility of

A CASE OF THE OFFICE SEEKING THE MAN.

united and persevering effort on the part of a small but earnest body of citizens. Harrisburg was hygienically unclean, she was unbeautiful and she did not care. She was unhealthful and did not heed. The situation was taken in hand by a group of unselfish, broad-minded citizens who threw themselves into the campaign with a zeal and enthusiasm that knew not defeat nor discouragement. The fight was protracted. But they won. A Park Commission was appointed and given a quarter of a million dollars to cleanse and beautify the city.

One of the active workers in this campaign was J. Horace McFarland so well known in our association. It is gratifying to announce that in a recent election to fill a vacancy in the Park Commission Mr. McFarland was elected without political influence and totally by public deference to his eminent qualifications for the office. In these days of political office holding it is delightfully refreshing to have an opportunity of observing the recognition of real fitness and worth in this agreeable manner.

The manufactures of farm and orchard implements have made notable progress in the United States in the last quarter of a century. Farm implements made by American manu-

THE QUESTION OF IMPLEMENTS.

facturers find their way into all quarters of the globe. In addition to the general expansion there have been important changes in ideas regarding tillage, and these have stimulated the invention of special types of implements. Perhaps the most important advances have been made with subsoilers and surface weeding implements, the one intended to improve the physical make-up of the soil by pulverizing, increasing root foraging area, and augmenting water holding capacity, while the other, the surface implement, conserving the soil's moisture by preventing evaporation.

The ideas of cultivators regarding tools and notions relating to tillage are changing. Among the fundamental concepts are (1) The correct preparation of the ground. This relates not only to its plant food content, but also and especially to its physical make-up. (2) The type of summer cultivation shall be shallow rather than deep. This is a natural corollary of the first, because if ground is properly prepared, the necessity of deep cultivation is removed. Summer tillage has then for its primary object the conservation of moisture, and for its secondary purpose the suppression of weeds.

As to the kind of implement, it is safe to say that there is no one style any more than there is one definite method. Cultivators recognize that a grade of steel and finish that will work satisfactorily in the gravels and clay loams of the East may be quite useless in the sticky drift of the prairie states.

A study of these things is well worth while, because it is closely connected with the economics of nursery practice. For that reason we have given some space to a consideration of it in this issue.

We are glad to chronicle the appearance of the first number of the *Country Calendar*, published by the *Review of Reviews* Co., New York, and printed by The J. Horace McFarland Co.,

Harrisburg, Pa., This sumptuous periodical is launched under most favorable circumstances, backed by a powerful publishing company, with strong literary assistance, printed by one of the most efficient and most artistic printers in the

THE COUNTRY CALENDAR.

country, and supported by an able corps of writers, the outlook is most promising. The make-up of this number as one would expect, is artistic. The quality of the articles is excellent, although one notes some unevenness in literary values. The leading article in the first issue is by Grover Cleveland, on the "Mission of Sport and Out-door Life." John Burroughs contributes one of his inspiring prose poems on the "Month of May." Other important articles are by Secretary of Agriculture, James Wilson, Director L. H. Bailey of Cornell University.

Aside from the well written editorial department, there are departments of garden and orchard, trees and shrubs, stock and poultry, the country house, the stable and kennel, the country beautiful, and the automobile department. In general make-up it differs but little from the *Country Life* of two or three years ago. There is certainly no good reason why the resident of rural districts, should now be without attractive and instructive periodicals on subjects relating to his life interests.

Unquestionably there has been some change during the past few years, in the ideas of planters in regard to the height at which the orchard tree should be headed. The relatively high head has been the favorite among the apple growers of the East. Particularly was this true when tillage and spraying became recognized as necessary factors in the progress of orcharding. With the acceptance of the principle of tillage, came special types of implements adapted to orchard use, and with these came also traceless harness, which permits of tillage without injury to the branches of the trees among the lowest of heads.

HEIGHT OF HEADING NURSERY STOCK.

The trend among peach growers has been distinctly towards lower heads, and this in the interest of ease of thinning, of picking, pruning, and spraying. So it is also with apples, but perhaps to a less marked extent. In the West there is a somewhat special reason for the protection of the trunk from the hot suns by using low heads; for it is safe to say that we should not charge all the injury of the sun scalding type to the March and April sun. The heat of June and July is undoubtedly responsible in some measure for part of the injury, and in our opinion shading the stem in hot sections, is just as necessary in summer as in winter. We have all seen times when the direct rays of the sun beating upon the stem of a fruit tree raised the temperature above the danger point. Under these conditions the life of the cells must have been endangered or killed.

We shall be glad to present a consensus of opinion on this subject (the height of heading nursery trees) in our June issue. In the meantime we shall be glad to hear from any who wish to contribute to the symposium.

There is a diversity of opinion and practice in the pruning of nursery trees. Some growers insist that all small tufts of leaves shall be removed from the trunks of the trees. They

do not approve of the "feathered to the toe" expression of a tree bearing these abortive leaf spurs. But if we look into the matter, we will find that there is a special reason why these little clusters of feeders should be allowed to remain. It should be kept in mind that the leaves

THE PRUNING OF NURSERY STOCK.

bear the digestive and respiratory organs of the plant. The tree, therefore, is fed in its various parts by the numberless factories at work in these leaves. Furthermore, each leaf probably feeds and stimulates the growth of a more or less localized portion, as roots have been shown to do. These tufts of leaves, then, on the stem may be expected to have an important part in the growth and building up of the trunk; and so it is, in fact. Experiment has shown that nursery trees clipped of these stem feeders will grow more spindling than others not pruned. A straight smooth stem is, of course, delightful to look upon, and desirable from the salesman's standpoint, but nevertheless, a stocky, sturdy one makes a better tree. Do not "rub" too early.

We are glad to present in another place the complete program for a meeting of the American Association of Nurserymen which promises to be the most successful and interesting in its history. Among the leading features of this session will be the reports of the various sub-executive committees of the Association. These will be heard on the morning of June 14th. In the afternoon a number of eminently practical subjects will be taken up: as the

THE PROGRAM FOR THE WEST BADEN MEETING.

grading of nursery stock, and the desirability of nurserymen planting experimental orchards for their own use. In the evening two important illustrated addresses will be given; first, a description of one of the most interesting collections of trees and shrubs which America possesses; the other, that topic which has attracted public attention so much in recent weeks, namely, fertilizing the soil by inoculation methods.

Not less interesting will be the program for Thursday, when our friends Stringfellow of Texas, and Taber of Florida will speak on methods of cultivation and of improving orchard trees. In the afternoon the business side of the nursery industry will have an innings. Mr. Thos. B. Meehan will introduce the subject of office management, and W. P. Stark of Missouri will review the fruit exhibit at the World's Fair. On Thursday evening our friend Hale, of Connecticut and Georgia, will give an illustrated address in his own inimitable manner, on the handling of fruit. This will be followed by an open (not closed as first announced) session, when the subject of "crown gall" and root knot will be taken up by George G. Hedgecock, agent of the United States Department of Agriculture. Friday, the last day of the session, will be devoted in part to papers, and in part to reports of committees, and final resolutions. Among the important papers will be one on the refrigeration of nursery stock already referred to, and one on the evolution of the im-

porting business. These subjects will be presented respectively by Madison Cooper, of Watertown, and James McHutchison, of New York.

The program committee is laying a great deal of stress on the Friday evening feature, which is to take the form of a fruit banquet. A choice selection of fruits in season are assured us, so we are informed. "Native wines are also expected." The toastmaster of the evening will be Mr. J. H. Hale, and we can expect that things will hum under his executive wand. Now members, show your appreciation of the persistent and efficient efforts of the program committee by a good turn-out at this the thirtieth annual meeting. The members of the committee have worked hard. The variety and excellent arrangement of the subject matter shows that. Let us remember that while the preparation of a program is a "thankless job" this committee has worked unselfishly and to a purpose. The success of the meeting is now in the hands of the members.

The program committee has reason to hope for the presence—nay more expects both Secretary Wilson and Shaw. Their presence would add immensely to the interest of the occasion.

We are free to say (and now while using the editorial we do so with a strong personal inflection) that this banquet "wrinkle" of the program committee strikes us most favorably. This is where we shine, especially when our mind is not worried by a half incubated speech. Remember that Hale is toastmaster and "things will be doin' ". If Hale has any scores to settle he will not forget the opportunity—and there may be a chance for others.

Bring your wives and sweethearts. Come in claw hammers, tuxedos or tweeds; but come!!

As one looks over the great array of horticultural journals of the present day, he can hardly fail to be impressed with the notion that a radical change is taking place in the type of

writing now most generally found in their columns. In many instances it is a style of literature and method of expression which we cannot do other than than deprecate. While we commend the abundance of illustration, the good letter press, the artistic make-up, we are not in sympathy with the over-enthusiastic, nay more, almost hysterical methods of describing common place every day operations in the garden and orchard. It is unnecessary to speak continuously in superlatives. Many of the articles of to-day are much too lavish in the use of exclamation points. For instance, in describing the simple art of top-grafting, a writer in a recent high class horticultural journal says after detailing the method of preparing the stock and scion, "And now the operation becomes exciting," referring to the simple act of inserting the scion into the stock. We have no desire to suppress healthy enthusiasm, but there are certainly many more exciting and exhilarating operations than the insertion of a scion into a stock.

Again one notes that the pages of some of our leading journals are filled with florid and glowing accounts of success in gardening, orcharding, or flower culture. These appear so constantly that one might imagine that these operations required only a small amount of perseverance, a modicum

of ability, and success was assured provided the worker was endowed with a proper spirit of enthusiasm. Enthusiasm is first rate, but it will not replace judgment, experience and industry.

One is almost led to believe that horticultural magazines are following the lead of some other journals of yellow hue in their eager search for the sensational and striking. We must confess to a strong preference for the sane and conservative methods of the older journals of this country and England, and we believe that we should hold fast to the sound and conservative, though less catchy and attractive, for in the long run such a policy will redound with most benefit to our patrons. The conservative policy, the careful method are the ones which will live and endure.

In looking over the pages of our contemporary, *The Cold Storage and Ice Trade Journal*, one is greatly impressed by the development of this comparatively new industry. We learn,

for instance, that the government of New Zealand is interested in developing refrigeration plants throughout that island. This is largely due to the fact that New Zealand is an important dairy, meat, and fruit producing region. Although the dairy business is not much more than

twenty years old, yet it now forms an important part of the agricultural exports of the colony. The frozen meat trade is also of great importance. In 1903 this amounted to 266,408,800 pounds of meat, valued at \$15,000,000. The fruit industry is also increasing in importance. Some few years ago considerable quantities of New Zealand apples were landed in San Francisco. While this is not likely to be repeated, or to increase to any extent, for the very reason that cold storage on this side of the water is so very efficient, it suggests the vast possibilities of the application of cold storage methods to various branches of the fruit and plant industry.

We are glad to note that this subject will have a place on the program of the West Baden meeting. Mr. Madison Cooper, of Watertown, New York, is down for a discussion of the refrigeration of nursery stock and the application of refrigerating methods to cold storage cellars. From the nurseryman's standpoint this is an exceedingly important topic. A prominent plant grower writes us as follows: "I believe that refrigeration of nursery stock and cold storage is the coming method of extending the season, and the proper way to handle nursery stock so that it will be shipped in a thoroughly dormant condition. I believe it means extending the nurseryman's season at both ends, and that the day is coming when we will have cases of nursery stock put in cold storage in this country, shipped across the continent in refrigerator cars, and delivered to nurserymen in Europe in a perfectly dormant condition, late in the season. What I have said applies even with greater force to stock travelling in opposite direction." We would suggest that those who are interested in this particular phase of the storage question should write Mr. Cooper in advance of the meeting, suggesting special phases for discussion and asking him to enlarge on those points which appear to be of greatest moment and interest to nurserymen.

REFRIGERATION AND COLD STORAGE.

TENDENCIES IN HORTICULTURAL WRITING.

Correspondence.

NOTES FROM GEORGIA.

EDITOR NATIONAL NURSERYMAN.

The first two weeks in February was a period of much rain, sleet and ice. For several days the ground was frozen so that it was impossible to lift nursery stock. Of course no planting could be done during that time.

From the middle of February to the last of March was a rush time. Shipments during that period were 25% in excess of the corresponding time last year. The demand being for a general line of nursery stock. Ornamental trees and shrubs, and conifers being the leaders. The orders for ornamentals the past season were fully 50% in excess of any previous year. The demand for this class of stock in the South is increasing, which is a most healthful sign.

Landscape work is also largely on the increase; so much so that we have established a landscape department, and are fully equipped to undertake extensive work.

Augusta, Ga.

P. J. BERCKMANS CO.

EDITOR NATIONAL NURSERYMAN.

The recent cold snap in Georgia caused considerable anxiety among peach growers, but reports now show that the fruit was practically uninjured. On April 6th snow fell in Georgia at several different points including Atlanta, Rome, Floyd county, and Thomson, McDuffie county. The following morning there was a very heavy frost at these places. I examined peaches in McDuffie county on April 8th and found them uninjured by the cold weather. My assistant, Mr. Harper Dean, Jr., was in Floyd county during this cold weather where ice formed nearly one-quarter of an inch thick, but he reports no injury to peaches. The only reported injury comes from Habersham county where peaches in low places were somewhat injured by the cold weather. The majority of the crop, however, in that section is not injured.

As reported some time ago, the Elberta crop of Northwest Georgia will be very short. In some places, notably Rome and Dalton sections, many orchards were entirely cut off. There will probably be about one-fourth of a crop of Elbertas in that section.

Atlanta, Ga.

R. I. SMITH, State Entomologist.

PACIFIC COAST.

Nursery conditions on the Pacific coast may be said to be in a healthy and prosperous condition. While the past summer was one of the driest on record, trees and plants obtained almost their usual growth, and what was lacking in size was made up in well matured stock. Sales on the whole, have been quite satisfactory, and in most lines the stock has been entirely cleaned up at very satisfactory prices.

In the North (Oregon, Washington and Idaho) winter apples are the leaders, although there is a brisk and growing demand for a general line of nursery stock for home planting, which will no doubt keep up for some time to come on account of the great development now going on, and the increasing immigration to the West.

California trade has been erratic again this past season, as usual,—the great demand being for cling peaches, on which varieties the nurserymen have been going somewhat slow for the reason that the call for clings had been light for the two previous years. The planting of nursery stock in California depends largely on present crops and prices, regardless of the experience of a series of years, and as a consequence the California nurseryman, who grows exclusively for home trade, has rather a hard time to supply the varieties wanted. It seems that whenever there is a low stock of a particular variety, that is the time every planter wants this particular kind.

Weather conditions have been almost ideal on the Pacific coast this past winter for nursery purposes. In the south there has been an abundance of rain, and California has received a drenching—and it has been a record breaker for rain-fall—insuring good crops for the present year. In the North the rain-fall in the early part of the winter was rather under the average with scarcely any snow and but little frost to interfere with field operations. Planting, grafting and outside work was mostly finished during February and the early part of March. The fine open winter was followed in the latter part of March by nice

rains which left sufficient moisture in the ground for growth. Spring came on with a rush this year, and as a consequence nurserymen were compelled to move a little faster than is their habit even in this country. In the early part of March the weather was so mild and warm that peach trees, and other early blooming varieties were out in full bloom, and of course the planters all over the country all wanted their stock at one time. Fortunately the weather cooled off a little, so the pressure was not as great as it appeared in the first place.

Packing, and shipping generally, was completed by the first of April, and while it is too early yet to give any opinion as to results of deliveries, think they will be fully up to the average this spring.

HORTICULTURAL LAWS.

The usual crop of horticultural bills has appeared before the Oregon, Washington and California legislatures during the past winter. The Oregon legislature passed a county inspection law, regulating the inspection of orchards, etc., in the various counties; this law will not affect the inspection of nursery stock. California passed a law making it a misdemeanor for nurserymen to send out trees untrue to label, and while there was a similar bill before the Washington legislature, it did not pass. It is reported that the nurserymen's bond in this state has been materially reduced.

PACIFIC COAST NURSERYMEN'S ASSOCIATION.

The Executive Committee of the Pacific Coast Nurserymen's Association is arranging a program for the annual meeting, which will be held in Portland during the early part of the month of July; the exact date will be announced later. Several Eastern nurserymen having signified their intention of being present at this meeting, the Executive Committee are arranging so that the Eastern nurserymen coming from the National Association at West Baden can meet with the Pacific Coast Association in Portland, while visiting the Lewis & Clark Exposition.

LEWIS AND CLARK EXPOSITION.

Many of our Eastern friends are no doubt planning to visit the exposition, and will be pleased to learn that the buildings will be completed and exhibits in their places ready on the opening day. And while this exposition will not, of course, compare with several that have been held in the East during the past few years, it certainly will be a revelation to Eastern people as to the resources and capabilities of the Pacific coast, and will be unusually attractive in its uniqueness.

Salem, Oregon.

M. M.

OREGON.

We have just finished our spring delivery which has been very satisfactory. This, with the last fall's delivery, has exceeded the business of any previous year. Our stock of sweet cherries and leading varieties of peaches, was exhausted early in the season. In anticipation of future trade demands, we have nearly doubled our stock, which on account of the unusually early spring, has all been planted, and our apple grafts are doing nicely, some having already made a growth of over two inches.

We believe that the nurserymen of the Pacific coast in general have sold out closely, and have every reason for future encouragement.

Milton.

A. MILLER & SONS.

GRADING NURSERY STOCK.

EDITOR NATIONAL NURSERYMAN.

In regard to grading nursery stock, discussed in your last issue:—I think the proper place to caliper a budded tree is from two to two and a half inches above the point of union, whether inserted close to the ground or a few inches above. In case of a root grafted tree it should be calipered from two to two and a half inches above the ground. The tree must have height also form of head as well as caliper to be first class in its grade. Seedlings for grafting, or for transplanting for budding should be calipered at the collar.

Dansville, N. Y.

W. H. HARTMAN.

EDITOR NATIONAL NURSERYMAN.

The Pennsylvania Nurserymen's Association has been actively engaged recently in urging the passage of the law for inspection of orchards and nurseries in the commonwealth with a view of controlling the San Jose scale.

The following gentlemen appeared before the legislative committee to urge the passage of the bill: Messrs. Hoopes of West Chester, Meehan of Dreshertown, Harper of Andorra, Moon of Morrisville.

The bill was first intended to benefit not only the nurserymen but its scope has been enlarged and it carries an appropriation of \$30,000 to employ inspectors, etc. Will try to have a copy of it sent to you while not as originally offered by our association it is better than the amendment submitted.

Regret I have not more time to write you at present, but spring's work is rushing us just now.

Morrisville, Pa.

THE WM. H. MOON CO.

EDITOR NATIONAL NURSERYMAN.

While our trade was only moderate during the winter, on account of the extreme cold we believe, it opened up nicely with the spring and we have had a very satisfactory business. Our trade runs argely to apple trees.

Winfield, Kansas.

COOPER & MONCRIEF.

IOWA.

This finds us in the midst of a very successful spring's business. While the season opened early with us apparently, it has turned cool enough to stop vegetation from putting forth very rapidly; in fact has held it in a very dormant condition which has been a great factor in continuing our late sales. From the calls on us from small nurserymen, we believe the surplus in stock will be nearly all taken up.

Trusting that we may meet you at our coming convention.

Waukeee.

J. WRAGG & SONS CO.

EDITOR NATIONAL NURSERYMAN.

We are still doing more or less shipping, and have not had a chance yet to get our books posted, or get up an estimate of the season's business. Our impression is that the receipts are in excess of last year, and we know our stock has been sold out closer than for many years, for the surplus left on our hands is very small, especially of the leading kinds of stock. There is of course quite a lot of surplus in the light grade apple and a few light grade peach, but it represents only a small part of the value of that, of the past three or four years. Cherry, plum and pear have been sold out very close. Excepting a light surplus in Keiffer pears there is nothing of much value in either of the above, and we think this is the experience of other nurserymen in our section. From their reports to us they have sold out closer than for many years, and all are looking forward to our next meeting in June, and feel they can go there with much to be thankful for the past year, and hope to welcome to our state full twice as large a delegation as have ever attended our meetings in the past.

Bridgeport, Ind.

ALBERTSON & HOBBS

MICHIGAN.

The Monroe nurseries have finished shipping stock and all report that the volume of business was about the same as last year. Everything indicates that they will have a good growing season and there will be a good supply of all kinds of nursery stock. More cherries will be marketed next spring then for some years past. There will also be a nice lot of Silver Maple ranging from 1 to 2 inches in caliper and from 10 to 12 ft. in height.

Monroe.

C. J. McCORMICK.

KANSAS.

The volume of trade in this part of Kansas has been a little lower than of former years, owing mainly to the few orchards that have been planted this year. Most people must be convinced before they will do a thing. The apple crop in the north of our State has not shown the people any crop for a few years, hence the decline in planting. The general retail trade has been about as usual.

The clean up in apple seedling has been better than was expected.

About all the two upper grades have gone to a good market and most of the lower.

North Topeka.

A. L. BROOKE.

MARYLAND.

We have had a very good season's trade. Peach, apple, pear, plum and cherry trees have been cleaned up very close, most every thing that is salable. Our strawberry plant trade has been quite heavy, and we are shipping out at this time one hundred to one hundred and fifty thous-

and plants daily. We have been having cool weather and have been able to get out plants in most excellent condition.

Taking it as a whole, we have had a very satisfactory spring trade.
Berlin.

J. G. HARRISON & SONS.

MINNESOTA.

We do not remember more ideal packing weather. Our short spring season here in the North necessitates crowding shipments into a very short period, and good weather is therefore thankfully appreciated. Frost out and season opened a week earlier than 1904. April has been uniformly cool and clear, thus holding undug stock back and giving free swing to the field work. Collections have been good—exceptionally so—except in the Wheat Smut districts which nurserymen have generally avoided since last summer. The prairie country continues its interest in forest tree planting and, as last year, there is a marked increase in the call for ornamental stock. As far as we can learn the nurserymen of this section are propagating heavier in all classes than in 1904 and indications for the summer's sales are promising.

Lake City.

JEWELL NURSERY CO.

We are awfully rushed just now or would give you a more careful report. Will give you some ideas we have evolved in the rush for next number if you want them.

J. N. Co.

THE COLD STORAGE QUESTION AGAIN.

Noticing your inquiry in your issue of April, and the reply thereto, by the Stark Brothers Nursery Co., concerning cold storage buildings, we write to give the nurserymen such conclusions as may be drawn from an experience of the writer.

Before coming here, I resided in Pittsburg, in an exceedingly well built frame house, with one serious defect. It was three stories high, with a garrett, into which there was no entrance, with nothing between the garrett and "all out of doors" but a slate roof. Of course the garrett was as cold as the outside. Space between the upright studdings of the house was open, and each space a flue for the cold air to descend. The effect was, that in reality there was nothing between the rooms and this cold air, but the lath, plaster, and wall-paper, making of an otherwise finely built house, a very cold one. In erecting our office here, we had the floors double, with tarred paper between the layers and the upright studdings covered with paper outside and in. The office is sealed, sides and overhead; we had carpenters fit in a board tightly between the studding on a level with the over-head ceiling, which effectually cuts off the down draft of the cold air from the attic. Thus we find rooms, surrounded with a body of dead air on all sides, resulting in a very warm office in the winter, and cool one in smmer.

We don't claim to be authority on cold storage, (although the Pittsburg house was an experience in that line), but we believe in the efficacy of the plan advocated by Messrs. Stark Bros. and recommend it to everybody building a dwelling house at least. The principle is the same for all buildings.

Your very truly,

Indiana Harbor, Ind.

W. C. DICKEY,

Secretary and Treasurer Ward-Dickey Steel Co.

Among the Growers.

The contract for furnishing trees and shrubs to the Department of Parks, New York, was secured by Frederiek W. Kelsey, 150 Broadway, New York. The contract calls for a large assortment of deciduous trees, of conifers, and hardy shrubs.

The Park Commission of Chicago contemplates the enlarging of Lincoln Park by the filling in of 245 acres of water front along the lake shore, at an estimated cost of a million dollars. In order to protect this low tract, a breakwater will be necessary. The work is in charge of O. C. Simonds of Chicago.

An important occurrence is taking place at the old headquarters of the Peterson Nursery in Chicago, and the building occupied by the city office by the late Mr. Peterson in 1871 is to be torn down on May first. The city office will then be removed to 108 LaSalle Street. Nurserymen and others will favor this company in the future by sending their catalogues and addressing their correspondence to Lincoln & Peterson Avenues.

Fruit and Plant Notes.

THE SPENCER SEEDLESS APPLE AGAIN.

In the last issue of the NATIONAL NURSERYMAN we had something to say in the editorial columns on this subject, and we are further moved by inquiries from correspondents and by the audacity of the promoters of this seedless, coreless and heartless enterprise to add another word on the subject in the present number.

After our brief article in the April number went to press the editor of the *Rural New Yorker* in his issue of March 25 devoted an entire page to showing up the apple in its true light and from an entirely disinterested standpoint. The specimens examined and pictured by Mr. Collingwood and Dr. Van Fleet not only contained carpels (core divisions) but these were strongly developed. One of the apples contained a seed and an extra or adventitious core near the calyx. As to quality, the examining committee decided that it was inferior, hardly as good as Ben Davis. So much for this evidence.

It was reported during the autumn that specimens of the apple were exhibited and created a sensation at the World's Fair, St. Louis. It is interesting to learn what Prof. Taft, the superior judge in charge of pomology at this exposition, has to say about this seedless wonder. He reports as follows in the *National Fruit Grower* for April:

"The specimens were presumably the best that could be secured, but the size was so small, being but little more than two inches, and the texture and flavor so inferior, as compared with other varieties from Colorado, that it seemed to have little merit as a commercial sort, especially as the coloring was so light and dull a red as to be unattractive. The apples shown in July appeared to be seedless, but it was evident that they had been selected, as about one-half the fruits shown in November had from one to three seeds in each specimen. While the core was but slightly developed all of the specimens had broad, deep and leathery basins that are a serious objection."

This is an excellent piece of evidence, though hardly favorable for the creation in question, but we have something additional. The writer is able to present in connection with this article a photograph furnished by Col. G. B. Brackett of the Division of Pomology, Department of Agriculture, Washington, which was made from specimens submitted to that division for testing and examination. This photograph shows one wormy specimen, (the upper one), and one developed core. In referring to the specimens examined by him, Col. Brackett writes:

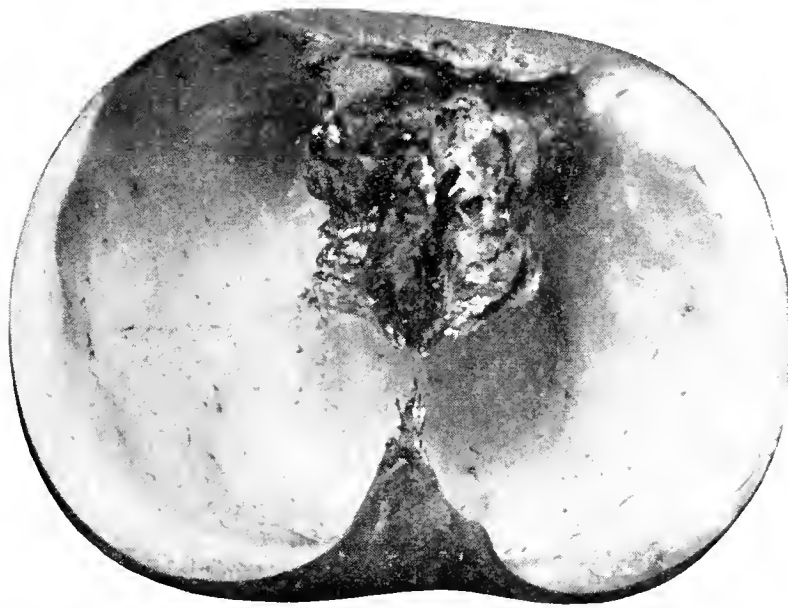
"The first specimen cut contained the larve of the codling moth and one perfect seed, with all the core formation." Col. Brackett further adds that the additional specimen left was allowed to ripen up before testing, but when cut was found to have decayed around the core, and that there was a clear separation between the core line and the flesh, showing that the no-core claim was entirely unfounded.

Here then are opinions by disinterested parties of the value of the fruit of this untried and newly developed freak. Yet in the face of all this, the enterprising company is going ahead as if the seedless newcomer were a proved and assured success. The following clipping illustrates one way of exploiting a new and untried novelty.

"Within a few days a deal will be closed by the Spencer Seedless Apple Company for a farm of about 100 acres, near Winchester, on 10 acres of which 150,000 trees from southern Michigan, Indiana, and northern Ohio will be planted at once. And within four years, if promises of the management hold good, 'there ain't going to be no core,' and the seedless apple will take its place with the pitless plum and naval orange. This company will not put apples on the market. Its purpose is to only sell trees, and after the first crop is out the seedless will be common property, as there will be nothing to prevent those who buy trees now from selling either trees or buds, as they please. It is understood that a number of Winchester and Frederick County men have bought stock in the new company."—*Martinsburg (W. Va.) World*.



SHOWING A WELL DEFINED CORE.



THE SEEDLESS APPLE.
SHOWING A WORMY CORE.

Courtesy of Division of Pomology, Department of Agriculture of Washington.

Our excuse for giving so much space to this matter is that we believe that nurserymen will be frequently appealed to by planters for information on this subject, and we feel that they should be in possession of the facts, which are herein presented.—J. C.

ORNAMENTAL SHRUBS.

It is claimed by J. Woodward Manning that the first specimen of *Berberis Thunbergii* stands to-day on the grounds of the Bussey Institute of Harvard College, Jamaica Plain, Mass. This specimen is about twelve feet in diameter and four feet high. It is the parent of [the first 50,000 plants set out in America. This plant demonstrated the value of the shrub in the United States, and later importations of seed have been made direct from Japan.

Berberis Aquifolium. Here is an interesting shrub, which is rarely appreciated, largely because it is usually planted in unsuitable situations. It is variously called Ashleaved Barberry, Mahonia, and Oregon Grape. In the north it is appreciated as one of the few broad leaved plants which takes on evergreen habits. The leaflets are oblong-ovate, strikingly shiny, dark green in midsummer, shading into a dull bronze in late winter. The flowers are borne in erect fasciated racemes, of bright yellow color, striking in contrast with the rich green of the foliage. The flowers are followed by grape-like clusters of blue berries.

This plant should not be set out in windswept or sun-exposed situations. Its home is on the northern Pacific coast, Oregon and British Columbia. In cool, moist mountain retreats, partly shaded it is thoroughly at home, and a thing of great beauty. If some care is given to selecting partly shaded situations, the plant will thrive and bring much pleasure in the eastern part of the country.

RAILWAY FACILITIES TO WEST BADEN SPRINGS.

Nurserymen will soon begin to study ways and means of attending the 30th annual convention of the American Association of Nurserymen, which occurs at West Baden Springs on the 14th of June next. The New York Central lines and the Monon Route will give a through car service from Rochester, N. Y., to West Baden Springs. The special train will leave Rochester on June 12th at 9:45 p. m., arriving at West Baden 5:55 p. m., June 13th. The fare is 1½ for the round trip from Rochester. Price of Berths from Rochester through to West Baden is \$4.00. State rooms can be secured for \$14.00. The train will go by way of Green Castle, Ind., where it will arrive at 12:44 p. m., on the 13th, leaving at 2:28 p. m. It is very gratifying to know that such excellent provisions for the comfort and convenience of those who attend the convention are available. This should assure a large attendance from points in Central and Western New York.

OFFERINGS FOR MAY.

The United States Nursery Co., Rich, Miss., are carrying two hundred acres of outdoor roses.

The Century Sprayer is a barrel type of Spray pump, being pushed by the Deming Co., Salem, O.

For Colorado Blue Spruce, one of the kings of evergreens, apply to the Scotch Grove Nursery, of Iowa.

F. C. Boyd, Gage, Tenn., is closing out his nursery stock, and will make special prices on ornamentals.

Notice the special ads of Knoxville Nursery Co., Knoxville, Tenn., and Fancher Creek Nurseries of California.

Thomas Meehan & Son, Dreshertown, Pa., are again in the field with a heavy line of star brand of Raffia.

In this issue Lord & Burnham Co., Irvington-on-Hudson, N. Y., draw special attention to the Burnham boilers.

The Hurst Manufacturing Co., Canton, O., are specializing in potato sprayers, but have other kinds for sale also.

Those who desire a boat trip from Buffalo to Detroit should correspond with the Detroit and Buffalo Steamboat Co.

For bargains in surplus stock of evergreens, especially white spruce, white and Scotch pine, write D. Hill, Dundee, Ill.

Meyer & Son, Bridgeville, Del., are making a specialty of the Premo dewberry. They are also pushing new lines of blackberries.

J. E. Ilgenfritz Sons Co., Monroe, Mich., are preparing as usual for a general business in the leading lines of choice nursery stock.

Maher & Groch Co., Toledo, O., are in the market with a reliable grafting knife called No. 2. They are also preparing for the budding season.

Those who wish a handsome instructive catalogue should write Ellwanger & Barry, Rochester, for their illustrated descriptive list of 144 pages.

Among the nurserymen who are successful in propagating roses, including the hardy forms, as well as trees and tender types, are Jackson & Perkins Co., Newark, N. Y.

The box strap is an important part of the shipping season's work. The Ward-Dickey Steel Co., Indiana Harbor, Ind., make a specialty of straps suitable for nursery purposes.

The strawberry planting season has been an active one this year. J. G. Harrisons and Sons, Berlin, Md., offer a surplus in this number. Among the leading varieties are Excelsior and Haverland.

CATALOGUES RECEIVED.

Price list of hardy trees, shrubs, vines, flowers, and fruits, offered by the Reading Nurseries, Reading, Mass. An extensive list of landscape material classified according to use, illustrated, and attractively presented.

Manning's Monograph on berry-bearing plants. This little brochure represents an interesting innovation in the way of nursery catalogues. It is what its name indicates, a classified descriptive list of those plants which are attractive largely on account of the character of the fruits they bear. The monograph covers 36 pages, is artistically illustrated, and is accompanied by an index, but it should have been paragraphed for convenience. In addition to the general descriptive matter, a calendar is offered showing the season of the year at which the different groups of plants are most attractive and best adapted for.

Oregon Nursery Co., Salem, Ore. A catalogue and price list comprising 100 pages, illustrating and describing a general line of ornamental stock and fruit trees.

The Elm City Nursery Co., New Haven, Conn., issues an attractive catalogue of 70 pages, illustrated with half tones. This nursery company makes a specialty of ornamental trees and shrubs. Their lists are exceedingly full.

AMONG CALIFORNIA GROWERS.

It is estimated that between 4,000 and 5,000 carloads of lemons will be shipped from Southern California this season.

Shippers of citrous fruits are experimenting with the bushel basket as a package for oranges. It is claimed that there is considerable saving in the expense of packing and in other ways.

The citrous fruit growers of California are being considerably agitated over the findings of G. Harold Powell, of the U. S. Division of Pomology, who has been for some weeks investigating methods of packing oranges and lemons, and who has discovered that considerable

losses result from injury by careless clipping of the stems. A number of meetings have been held, and others are planned to cover the citrous region of the state. These are being addressed by agents of the United States Department of Agriculture, as well as representatives of the California Experiment Station. Brother Powell seems to have been very successful in stirring up interest in this important department of the citrous industry.

The Association of California Fruit Distributors recently passed the following resolution:

"Resolved, That all shippers affiliating with the California Fruit Distributors discontinue the use of the present form of crate and basket for the shipment of crate fruits, and that they use a package based on the size of the present peach box, with three baskets made to fit therein side by side, the reason for the change being that the fruit can be packed more easily in the contemplated basket and that the peach box or crate of that dimension will load more rapidly in the cars for eastern shipment. There will be no stoppage of air passages in the cars and circulation will be unimpeded. Fruit of the different varieties can be loaded directly into the ice cars from the wagons, Without having to wait for tiers of the same variety of package."

If this goes into effect it will make an important change in the manner of handling citrous fruits and will do much towards unifying packing methods.

THE TREASURER HAS HIS SAY.

A BRIEF VISIT TO WEST BADEN.

A few days ago we received a very pressing invitation from Mr. E. Albertson, of Albertson & Hobbs, Bridgeport, Indiana, and Mr. W. C. Reed, Vincennes, Indiana, to join them in a visit to West Baden Springs, Ind., where the National Association of Nurserymen will hold their thirtieth convention on June 14th next. Of course it was out of the question to refuse an invitation of this kind and from this quarter, and 8 o'clock Sunday morning found Mr. Albertson and myself at the West Baden Hotel where we were joined by Mr. W. C. Reed and Mr. Harry D. Simpson of Vincennes who thus made us thrice welcome. Of course we had to visit Spring No. 1 for an appetizer before breakfast and there certainly could not be a more ideal playground for grown up mortals than this same West Baden Springs. It is a beautiful spot for a convention and one has to see it in order to appreciate its beauty and almost numberless attractive features. The management of the West Baden Hotel made us feel entirely at home from the moment we entered the grounds until we left and we are certain, with this charming spot, its unbounded facilities for entertainment, together with the untiring efforts of Messrs. Albertson, Reed and Simpson, that the thirtieth convention will be a most decided success in every respect. The program committee deserve great praise for the elaborate entertainment which they have prepared.

Among other things it is intended that the fruits of the season from all the various sections of the country represented by the Association shall be served on tables at the hotel which will be set apart especially for convention members and their friends. It is believed that this can be made one of the most pleasant as well as the most profitable feature of the meeting making it a fruit feast for three or four days. A liberal supply of fruit from all sections of the country which are able to contribute is promised. It is expected that the express charges will be paid out of the treasury of the association, as there will be no charge from the contributors. These fruits will be displayed in the exhibition room where the members are expected to partake of them to their heart's content.

The Program Committee wishes to announce that the schedule of rates at the West Baden Hotel stands as per previous notice, that is to say, the hotel will furnish convention halls, exhibition rooms, ball room and music free of charge for the convention.

The rates that were given us by Mr. W. J. Kennedy, chief clerk of the hotel, are as follows:

Room single with hot and cold water, toilet, telephone, etc., \$3.00.

The same room for two persons, \$2.50 each.

Room with bath, single, \$5.00 each.

Room with bath, double, \$8.00 or \$4.00 each person.

Also a limited number of rooms, toilet, \$2.50.

Mr. Kennedy states further, "there is no line drawn on any particular kind of a room. These rates apply to all of the best rooms and will be given out to all who come at these rates, and no 'hold up game' practiced on any coming here for this convention. Furthermore we shall direct our best efforts to make the meeting a success in every way and to satisfy the most particular with the aid of your very efficient committee on arrangements."

Every member of the association ought to make a special effort to be present at this meeting, the location is central and the facilities, entertainments and the hotel and Springs offer attractions which in themselves are sufficient to pay for making the trip, aside from the benefits of the convention.

Rochester.

C. L. YATES.

Quiz Column.

QUESTIONS ON PROPAGATION.

Will the buds from sweet varieties of cherries unite and succeed as well if budded on Mahaleb stocks as on Mazzard, or will they be more subject to black knot in future? Should the cherry be budded as soon as the bark can be worked, or not till late in the season?

Glen Rock, Pa.

W. S. N.

Our experience is that buds from sweet sorts of cherry unite with Mahaleb stocks as well or better than with Mazzard. They grow as well and make as large a tree as on the Mazzard. The root system on the Mazzard is better than on Mahaleb, though Mahaleb gives a very good root. We usually get about one-half of our one year sweet cherries $\frac{3}{4}$ and up, 5-7 feet which we consider as good as can be grown on any sort of stock.

Cannot say about black knot as we have not followed up the trees with that in view.

We prefer to bud cherry late in the season rather than early as we have always had a better stand of buds.

Vincennes, Ind.

H. M. SIMPSON & SONS.

How can I propagate the new rose, Baby Rambler (Levavasseur)? Can it be grown from cuttings or will it not retain its dwarf habit in this way? If it be budded, what stock must be used? W. S. N., Pa.

The new rose, Baby Rambler (Madame Norbert Levavasseur) propagates readily both from hard wood cuttings and from green cuttings; the latter of course being the most rapid and economical manner of increasing this variety. We also grow it by budding in the summer time on Mannetti stocks. We have seen it growing in France, grafted on some other rose root, but we are not sure what root was used. For this country we are satisfied that very much the best way is to grow from green wood cuttings in green-houses and as this rose seems to be particularly hardy, standing the winters unusually well, we do not believe there is any danger of losing the young plants, set from small pots in June, during the succeeding winter, which is frequently the case with many of the Hybrid Perpetuals and other so called hardy varieties.

Rochester, N. Y.

BROWN BROTHERS COMPANY.

Can quince stocks be grafted successfully, and should the quince be budded early or late and how should buds be handled? Having had bad success in budding quince last season, desire information.

W. S. N., Pa.

We usually bud quince stocks about August 15th. We understand that at Huntsville, Ala., quinces have been grown with fair success by grafting on tips of apple roots, but we have no personal experience.

Rochester, N. Y.

CHASE BROTHERS COMPANY

Please state whether or not a large Buckeye tree can be successfully moved at this time of the year? And whether or not it is a cultivated one.

Cincinnati, O.

G. M.

Almost any kind of tree and almost any size of tree may be moved successfully in winter time, provided the transplanter uses sufficient pains in carrying out the operation. The larger the tree, the larger the ball of earth should be which surrounds the roots. A trench is dug in a circle about the tree deep enough to cut all the roots. Professional tree lifters then elevate the tree upon a truck by a lifting apparatus. It is transplanted and placed in a hole larger than the one from which it came, and the remaining space filled up with rich soil. If the transplanting is done in winter or in the fall, the ground should be heavily mulched. This is for the purpose of keeping the frost out, and allowing root action to begin quite promptly. Tree moving is expensive work, and as stated above, it is successful in proportion to the care given. It is customary to head back the tree more or less severely after it is set.

C.

HANDLING PEACH PITS.

Please state how peach pits are handled so as to secure a good stand? Can one year old seed be sprouted without freezing?

Maryland.

F. A.

Do not think in the Northern states, we often get a season, when a good stand of peach can be obtained by using seed of previous year's

growth, that has not been frozen, and think the large majority of seasons they would not sprout until the next year. Our custom is to carry all seed in our cellars one year and plant the seed in the fall. If the previous year's seed is to be planted in the spring, it should be either bedded in open ground where it will freeze during the winter, or packed in sawdust or earth in cellar, and kept moist to open the pits.

Painesville, O.

THE STORRS & HARRISON COMPANY.

CUPID BUSY IN THE SOUTH.

It has been given to us by marconigraph that before the May issue of this journal reaches our readers another well known nurseryman will have shown his faith in the blessedness of the benedictine state by joining that great army. The best wishes of the NATIONAL NURSERYMAN staff are heartily tendered to Mr. and Mrs. R. C. Berckmans. May they both appear at the annual meeting to receive in person the greetings of their many friends in the ranks of the association.

Obituary.

We regret to announce the death of John B. Morey Sr., of the firm of John B. Morey & Sons of Dansville. Mr. Morey had been in poor health for some time and passed away about the middle of April. His death removes a well known figure in the nursery circles of Dansville. The sympathy of a large circle of friends is extended to the bereaved members of the family.

SKETCHY NOTES FROM FLORIDA.

BY THE BUSINESS MANAGER.

As I promised to give you a rough sketch of southern observations I will endeavor to do so but have not had time to think much since I returned.

Jacksonville, the starting point of our peregrinations, and the Metropolis of Florida, is growing rapidly, and many fine large blocks are in process of erection. It is an important shipping point, nearly everything used in Florida coming in from Jacksonville.

While St. Augustine is a quaint old historical town, yet the people are thoroughly practical. Some oranges and kumquats in addition to vegetables are grown in and around St. Augustine. The finest oranges are grown near Ormond in Rockledge on the Indian river.

Palm Beach consists principally of two large and magnificently equipped hotels. The entire town is owned by Mr. Flagler and is surrounded by cocoanut palms. There is an avenue of Cocoanut Palms between the two hotels, half a mile in length, making one of the most beautiful walks that I have ever seen.

There is a comparatively new orange called the King Orange grown outside of Miami. Growers of this orange claim it is the coming variety. In appearance it is large, of reddish color with a very rough skin. We would not think it remarkable but it commands the highest price on the market where its value is known.

The most noted grove of Grape Fruit is four miles outside of Miami called Douglas Grove, situated for shelter in the middle of a large forest of Pine trees. Mr. Douglas commenced picking Grape Fruit in October from this year's crop, but the appearance of the trees did not indicate that hardly any had been picked.

They were holding a fair at Miami showing all the tropical fruits and vegetables grown in that county which is the most productive part in the state. Strawberries, pineapples, bananas, star apple, guavas, kumquats, pawpaws, cocoanuts, persimmons, grape fruits, oranges, lemons, etc., vegetables of all kinds, of the most unusual size were exhibited. Miami has been built up in the last eight years.

The whole east coast is owned and controlled by Mr. Flagler, and it is due to his energy that Florida is to-day appreciated as a fine winter resort. All the comforts in the north in the way of fine hotels, railroad services are due to his untiring energy and good judgment. He controls the railroads from Jacksonville to Miami; in fact they told us that he was the owner of all the hotels and railroads. He runs his cars so close to his hotels that the passengers may get off in front of the hotel. It is one of the finest systems that I ever saw.

Rochester.

C. L. YATES.

COLONIST RATES.

To Pacific Coast Points, Via WABASH RAILROAD. On sale March 1st, to May 15th inclusive, \$42.50 to all Pacific Coast points from Buffalo. Correspondingly low rates to points in Utah, Montana, Idaho, Washington, Oregon and California. Ask your Local Agent or write R. F. Kelley, G. A. P. D. or James Cass, N. Y. S. P. A., 287 Main Street, Buffalo, N. Y.

PROGRAMME FOR THE THIRTEENTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

Revised May 8, 1905

WEST BADEN SPRINGS, INDIANA, JUNE 14, 15, 16, 1905.

WEDNESDAY MORNING, JUNE 14TH, 10 O'CLOCK.

Calling to Order.....President E. W. Kirkpatrick, Texas
Welcome to Indiana.....Hon. Jesse Overstreet, Indiana
Welcome to West Baden Springs.....Andrew J. Rhodes, Indiana
Response for the Association.....By the President
President's Address
Reports of Secretary and Treasurer
Reports of Committees—
Tariff.....Irving Rouse, New York
Legislation.....Chas. L. Watrous, Iowa
To Edit Report.....J. Horace McFarland, Pennsylvania
To Meet Western Freight Classification Committee..
.....Peter Youngers, Nebraska
To Meet Eastern Freight Classification Committee..
.....Wm. H. Moon, Pennsylvania
To Meet Southern Freight Classification Committee..
.....Herbert S. Chase, Alabama
Transportation.....E. Albertson, Indiana
Discussion by G. L. Taber, Florida and members.
The Cost of a Tree.....Harry L. Bird, Michigan
Discussion by Aubrey Frink (Florida), J. Horace Mc-
Farland (Pennsylvania), and Members.
Nomination of State Vice-Presidents

WEDNESDAY AFTERNOON, 2 O'CLOCK.

Election of State Vice-Presidents
Grading Nursery Stock.....L. A. Berckmans, Georgia
Discussion by Members.
The Low Prices of Ornamental Stock.....Chas. Maloy, New York
Discussion by Members.
The Grape, the Commercially Neglected Fruit..T. V. Munson, Texas
Discussion by Members.
Experimental Orchards for Nurserymen.....L. C. Corbett
United States Department of Agriculture
Discussion by Members.

WEDNESDAY EVENING, 7:45 O'CLOCK.

By aid of the stereopticon the extremely interesting papers of the evening sessions will be fully illustrated. It has been the endeavor of the Committee to make this year's program an eminently practical one, and we believe all the subjects presented are of unusual interest to every member. As the room must be darkened, members are earnestly requested to be present at 7:45 sharp.

A Tree Garden to Last a Thousand Years (stereopticon)
.....J. Horace McFarland, Pennsylvania
Discussion by J. Woodward Manning (Massachusetts), and Members
Soil Inoculation...Dr. Geo. T. Moore, U. S. Department of Agriculture
(Stereopticon). Discussion by J. H. Hale (Connecticut), and
Members.

Question Box—A great many questions have been suggested to the Committee for discussion, but it has seemed best to consider them through the Question Box. Questions will be received by the Secretary, or the Chairman of the Program Committee until Thursday p. m. and will be answered on Friday.

THURSDAY MORNING, JUNE 15TH, 9:30 O'CLOCK.

The New Horticulture.....H. W. Stringfellow, Texas
Best Methods of Improving our Standards of Trees, Fruits
.....G. L. Taber, Florida
Discussion by W. C. Reed (Indiana), and Members.
Quality vs. Quantity.....Prof. John Craig, New York
Discussion by Members.
San Jose Scale again, The Best Spray,.....F. C. Hall, Maryland
Discussion by Members.

THURSDAY AFTERNOON, 2 O'CLOCK.

Office Management.....Thos. B. Meehan, Pennsylvania
Discussion by Chas. J. Brown (New York), Wm. Pitkin (New York)
The Fruit Exhibit at the World's Fair.....Wm. P. Stark, Missouri
Discussion by J. S. Butterfield, (Missouri), and Members.

The session will adjourn at 3:30 p. m. when the American Nurserymen's Protective Association, and the Nurserymen's Mutual Protective Association will hold their annual meetings as per notices of the respective Secretaries of those organizations.

THURSDAY EVENING, 7:45 O'CLOCK.

Picking, Packing, Grading, and Shipping Fruit (stereopticon)
.....J. H. Hale, Connecticut
Discussion by members.
Crown Gall and Root Knot (stereopticon).....
.....Geo. G. Hedgecock, U. S. Department of Agriculture
Discussion by C. L. Watrous (Iowa), J. H. Hale (Connecticut)
and Members.

FRIDAY MORNING, JUNE 16TH, 9 O'CLOCK.

Election of Officers
Selection of Place for next Convention
Appointment of Committee on Resolutions
New Business
Refrigeration of Nursery Stock and Storage in Cellars.....
.....Madison Cooper, New York
Discussion by Members,
Excluding Advertisements, Quoting Prices.....J. M. Irvine, Missouri
Discussion by Theo Smith (New York)

FRIDAY AFTERNOON, 2 O'CLOCK.

The Evolution of Importing.....James McHutchinson, New York
Discussion by Hiram T. Jones (New Jersey), Andre L. Causse (New
York), F. L. Atkins (New Jersey)
Answers to questions deposited in question box
Report of Committees
On Exhibits
On Final Resolutions
On Program
Announcement of Committees
Adjournment

FRIDAY EVENING, 7 O'CLOCK.

Fruit Banquet—This is a special feature and it is hoped will be an enjoyable one. Many members have kindly agreed to contribute liberally. Fruits in season in their respective sections and a choice selection is now assured. Native wines are also expected. Prominent members and well known speakers will respond to toasts and the dinner will be presided over by one of our leading members, Mr. J. H. Hale, acting as toast master. Tickets will be issued at a reasonable price per plate and must be secured from any member of the Program Committee, or the Secretary of the Association up to Thursday night, the 15th of June. There will be dancing after the banquet, the music being furnished by the Baden Springs Hotel Company.

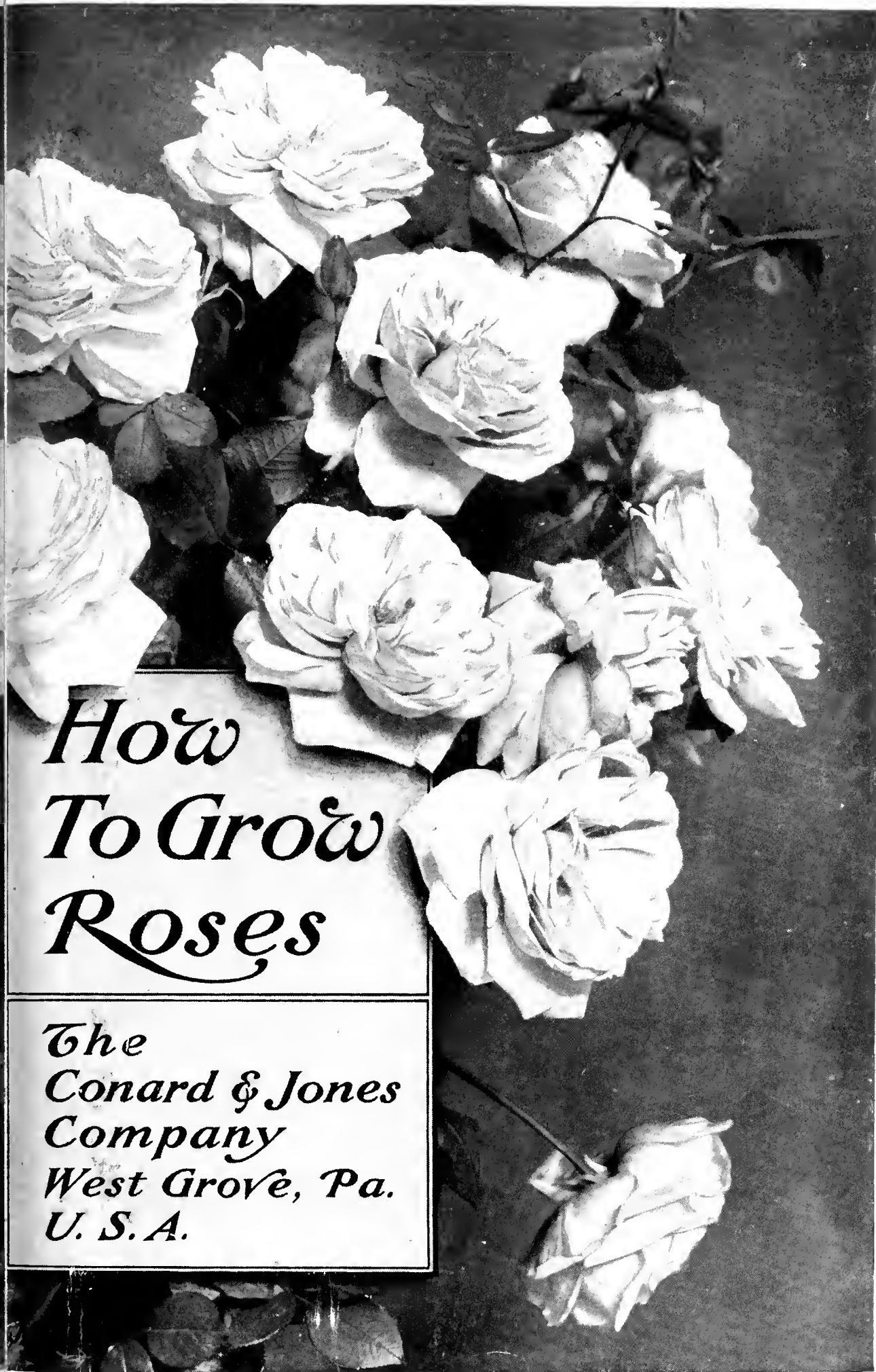
SATURDAY, JUNE 17TH.

A special excursion has been arranged to Mammoth Cave, Kentucky, and details will be announced in advance. Members wishing to take in this excursion must apply to the Committee before Friday, at 2 p. m.

TIME REDUCED

NINETEEN AND ONE-HALF HOURS
TO MEXICO.

Wabash Line trains make close connections at St. Louis with trains via the Iron Mountain Railway and Laredo Route carrying through Palace Sleeping cars to the City of Mexico. Time is less than three days from St. Louis. Two Trains Daily. You can leave St. Louis at 2:21 P. M. and arrive at City of Mexico 10:50 A. M. the third morning or you can leave St. Louis at 8:20 P. M. and arrive City of Mexico 7:30 P. M. the third evening. Mexico is a delightful and healthful winter resort. Your nearest Ticket Agent will give you full information or write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A., 287 Main Street, Buffalo, N. Y.



How To Grow Roses

*The
Conard & Jones
Company
West Grove, Pa.
U. S. A.*

THE work done at the Mount Pleasant Press is designed to bring into prominent attention the business of the customer. The Rose Manual made for the Conard & Jones Company, of which the cover is shown here and on the last page of this insert, is a rosy little book about roses. The cover is simple and not very expensive, but it is about roses. How much more attractive it is than the usual conventional tomato-can color splotch? The photograph from which this front cover was engraved came from our own great collection, in which there are now some 8,200 others of interest to nurserymen, seedsmen and florists, with an active force of educated workers adding new things or better things all the time.

There is one trouble about these pictures—they are in advance of the nurseryman, somewhat, for we watch the Arnold Arboretum at Boston, Highland Park at Rochester, and such places else-

where, to get the best things. We find, alas! that the nurseryman doesn't know about them, or grow them. But he will, some time, and then we shall be all ready for him.

*J. HORACE McFARLAND COMPANY
MAKERS OF BEST CATALOGUES*

*MOUNT PLEASANT PRESS
HARRISBURG, PENNSYLVANIA*

These pictures help us to make the best catalogues in America—perhaps in all the world. We like to give information about the sort of work that *sells* trees and plants.



日の出植木會社

HINODE FLORIST
COMPANY

WHITESTONE, LONG ISLAND
NEW YORK

A simple but striking cover, made to call attention to the plants offered by a Japanese importer,
by the Makers of Good Catalogues —

J. HORACE McFARLAND COMPANY, MOUNT PLEASANT PRESS, HARRISBURG, PA.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., JUNE, 1905.

No. 6.

THE HEADING OF NURSERY STOCK

Interesting and Valuable Review of an Important Subject—East and West Represented.

WESTERN NEW YORK.

EAST AND WEST CONTRASTED.

I think there is a tendency on the part of nurserymen to head fruit trees lower. We are averaging about three inches shorter stems than formerly.



The arguments in favor of shorter bodies are many, but the necessity of it is largely a question of locality. In the West the bare bodies are apt to sun scald, and they for many years have been asking us for lower headed trees on that account. Since spraying came into vogue, there is, of course, a decided advantage in keeping the heads low. This is also true when it comes to picking fruit.

In our Eastern climate the bodies do not seem to suffer from exposure as they do in the West, but when it comes to spraying and picking the demand for lower-headed trees is no longer sectional.

For Eastern orchardists I do not believe that it makes much difference either way. If a grower prefers to head high so that he may drive under the limbs, I do not think he will at all injure his fruit yield by so doing. So far as my observation extends, it is perfectly safe for each orchardist to settle that question for himself, and as best suits his own convenience.

Dansville.

GEO. A. SWEET.

HEAD LOWER FOR ECONOMIC REASONS.

So far as we know nurserymen are heading their trees just about the same as they have always been in the habit of doing, but we have no doubt that there will be a disposition on the part of planters to head back pretty well and to keep the trees from getting away up out of reach as some orchards are now.

We must all come to spraying, and it is very difficult to reach the tops of some of our old trees. We have an orchard that was sprayed twice carefully. There are a few trees just across the lane that never have been sprayed. The apples upon those trees are comparatively worthless, because of fungus; those on our trees are as fine as we ever saw.

Rochester.

CHASE BROS. CO.

PENNSYLVANIA.

AVENUE AND SHADE TREES—INTERESTING EXPERIENCE.

There is an increased demand for low-headed deciduous trees. The desire to have shade trees to start ahead seven or

eight feet from the ground is largely on the increase, in fact the demand for low headed trees is now so great from our retail buyers that we are trimming all our young blocks so that they will form low heads. Some of our taller trees have had to be cut back to conform with the demands. This mode of trimming necessitates a more expensive cultivation than the old way, as it requires more room for trees to develop a good head in nursery rows.

The advantage of these low-headed trees is a fully developed specimen tree when planted out on avenues or private grounds.

The benefit to the nurserymen is a considerably advanced price for a perfect specimen tree, whose branches are already well developed. A 7-8 foot trunk before any branches are formed is the possible height, lower than this will not answer for street or avenue planting and are not desirable for lawns.

I believe the advantages from this mode of trimming are quite desirable, as the nurseryman now does what was formerly done by the planter and required two or three years to obtain the results which are now secured in trees grown in this manner. The artistic effect of low-headed trees on the lawn, I believe, will be advantageous.

Morrisville, Pa.

THE WM. H. MOON CO.

OHIO.

EDITOR NATIONAL NURSERYMAN.

We do not think that planters as a rule are making any great change in regard to planting low headed trees, or that nurserymen have made any effort to supply them, or have changed their methods of heading trees any lower than they did two to five years ago. Our impression is that the few growers who are doing the talking and planting along this line, are experienced men, who possess the necessary knowledge required to make good orchards, and keep the trees pruned as they should be. We think the majority of men who grow trees in this way are buying one year stock and heading them themselves. We doubt if the average planter possesses the necessary knowledge to keep the trees in good condition and grow them with low heads.

Painesville.

THE STORRS & HARRISON CO.

MICHIGAN.

SOME DEMAND FOR LOW HEADS.

There is some demand for low-headed trees. We find however, as a rule that our orders do not specify this kind of trees. It is certain however, that there is a tendency to train trees down lower than in the past. The particular advantages

claimed are that a large portion of the fruit can be gathered from the ground, thus saving time and labor, another thing is the trees being low, are less exposed to strong winds, and fruit hangs on better than when the trees are high in the air. The reduced labor of picking the fruit seems to be the chief claim in favor of low headed trees. We should think however, that an argument against this would be the increased difficulty of cultivation, especially after the trees had attained a considerable size and width.

Monroe, Mich.

THE GREENING BROS. NURSERY CO.

IOWA.

NO SPECIAL CHANGE.

EDITOR NATIONAL NURSERYMAN.

As to low-headed trees these days. I know of no change in doctrine or practice regarding the shaping of young trees by nurserymen or orchardists for the last quarter century at least. About thirty-five years ago there was considerable talk in the West about very low headed trees. Some advocated the planting of orchards headed just above the surface of the earth. It was argued that in-as-much as many trees suffered injury in the trunk, a tree with no trunk would be better, for it would escape such dangers. In practice it was shown that the trees having no flexible stems split down at the ground and so failed. Then the practice was to prune nursery trees about twenty-four to thirty inches, sometimes a little more, and that practice has not, so far as my experience and knowledge go, been changed in any wise during the last quarter century. I see no reason to suppose it will be changed in the upper Mississippi valley.

Des Moines.

C. L. WATROUS.

KANSAS.

LOWER HEADS IN DEMAND.

We are not advised as to the situation in the East in regard to low headed trees. There has been a change in the West, however, and low-headed trees are usually preferred for planting. To meet this demand, we are heading trees somewhat lower than we did a few years ago. In the West, especially, outside of river bottom districts, there is more or less strong wind to contend with, and the injury to fruit is not so large from that cause where low-headed trees are planted. The fruit also of course from these low headed trees is more easily gathered and that which falls to the ground is not bruised so bad. We believe trees of this nature are the best, at least for this section of the country.

Topeka.

L. R. TAYLOR & SONS.

NEBRASKA.

LOW HEADS RULE.

The West early learned that the high heads of nursery trees shipped from the East were very liable to sun-scald. We have nearly always in our twenty-five years business here cleaned up our blocks at two years and the heads of these although lower than three year trees are quite high enough to suit our trade. These trees are generally preferred on account of sun-scald and are less affected by the high winds. If a high headed tree should get a list to the North here it is almost sure to become worthless.

Beatrice.

J. A. GAGE.

CANADIAN PRACTICE.

A CLEAR STATEMENT.

EDITOR NATIONAL NURSERYMAN.

We do not know why it is, but as a rule farmers desire to secure tall trees. It may be that they find it easier to work around such trees with horses, but we cannot understand what other reason they could have for desiring stock of this nature. We believe that the nurserymen in Canada grow their trees taller than the nurserymen in the States, as quite often when we have had to import stock from America growers it has proved unsatisfactory to some of our customers, owing to its being headed in so low, while in every other way the stock would be of prime quality. Of course, nurserymen all over the country much prefer low heads. It does not take so long to produce a tree and then there are other good reasons why trees of this nature should be grown.

In the first place, trees that are tall and have slender trunks, which is almost sure to be the case, are more apt to be blown out of line in the rows by severe winds and storms than lower headed trees. It takes a year or more longer to produce these tall trees and quite often as a result of being left in the nursery row this extra time, the trees become stunted. This is certainly evident, and we can point to instances in our immediate neighborhood where trees of this nature have been purchased and they have never made a satisfactory growth since they were planted out, and they never will.

In the second place, fruit is more easily picked from low headed trees than from tall trees. It is but a few years since all the peach trees through this section were allowed to grow as tall as they desired and you know yourself that as a consequence of this the bearing wood of the peach trees would be simply up to the ends of the branches and that the lower parts of the limbs would be completely naked of any growth. Consequently, in order to pick peaches trees one had to carry a step ladder and sometimes a longer ladder, and it took a great deal of unnecessary time to harvest the peach crop. Of late all peach growers in this territory are heading their peach trees in every spring and keeping the growth down, so that the greater part of the crop can be picked without the use of a ladder at all.

In the third place fruit that is almost matured dropping from the trees to the ground is not so apt to be injured when dropping from these low-headed trees. We know that often pears that have dropped from dwarf trees have been brought in to us and have passed as first class stock, simply because it was not bruised at all, while pears which fell from standard grown trees and were caused to fall by the same wind or storm were so injured and bruised that they were practically worthless.

There are other reasons that could be given for desiring low headed trees.

We find that the growers in Nova Scotia complain more about the height of a tree than Ontario growers do, but we think that this is simply because they really do not know what constitutes a first grade tree and instead of considering the roots and branches they look altogether to the trunk of the tree, thinking that that should be as straight as a string and free from blemishes, and look as if it had been turned out by machinery. They do not seem to take into consideration the fact that within a very few years they would not be able to tell whether the tree were straight or crooked when planted.

We trust that this information will be of some value to you.
Winona, Ontario, Canada.

E. D. SMITH.

INDIANA HORTICULTURE.

The fact that this, the Thirtieth Annual Meeting of the American Association of Nurserymen, is being held in Indiana and the Association is the recipient of many courtesies at the hands of our Hoosier friends, is more than sufficient justification for giving considerable prominence to the horticulture of the state at this time. We are therefore pleased to present a brief sketch of the historical phase of this industry for the preparation of which we are indebted to Professor James Troop, Purdue University.

A SKETCH OF THE NURSERY BUSINESS IN INDIANA.

JAMES TROOP, PROFESSOR OF HORTICULTURE, PURDUE UNIVERSITY, INDIANA.

EARLY HISTORY.

The nursery business in Indiana began about one hundred years ago when "Johnny Appleseed," a famous character in his way, traveled this section of the country scattering apple seeds and good cheer wherever he went. It is said that he lived to see trees bearing fruit covering a territory of one hundred thousand acres; and believed that many an early pioneer enjoyed the fruit from these trees without stopping to question as to whether they were true to name, or whether they had been grafted upon whole or piece roots. At this time practically all of central and southern Indiana was one vast forest wilderness. Into its almost impenetrable solitude, with its dangers and privations, our forefathers pushed their way. There were no railroads nor highways then, [for no one had gone before to prepare the way for their coming. Fortunately they came not as adventurers, but as home seekers, generally from the ranks of those of moderate means, who thought to better their conditions where good homes were supposed to be within the possibilities of their search. And the records show that but few of them were disappointed.

Perhaps the first of all our pioneer fruit growers were foreigners—a colony from Switzerland, who began grape growing and wine making at Vevay, in Switzerland county, on the Ohio river, at the very beginning of the nineteenth century. These were soon followed by others, mostly from the South, settling farther north, some of whose descendants are still well known among the most progressive horticulturists of the state.

NURSERYMEN.

Of the pioneer nurserymen of the state we may mention Reuben Ragan, who located in Putnam county, in 1821. Although not an extensive nurseryman, as that term implies to-day, yet he was full of enterprise and industry in collecting from all available sources, varieties of fruits that gave promise of being valuable acquisitions to the lists then in cultivation. In 1824, Levi Cook began a nursery in Henry county, and continued in business for some years. In the early thirties Aaron Aldridge established the first nursery in Marion county, within what is now the city of Indianapolis. He was one of those worthy pioneers, who, in 1840, originally established the Indiana Horticultural Society. He was assisted in this good work by Henry Ward Beecher, who was then editor and proprietor of the *Western Farmer and Gardener*. Mr. Aldridge was succeeded by Martin Williams,

who had his nursery on a part of the land now occupied by Crown Hill cemetery.

It was about 1830 that the pioneer nursery of Morgan county was established by Joshua Lindley, of North Carolina. He continued in the business until about 1843, when he returned to his native state, where he lived until ripe old age, and left a legacy to posterity his only son, heir, and successor, the present J. Van Lindley who is well known

to the present generation of nurserymen. Mr. Van Lindley was the first to fruit the Bartlett pear within the borders of this state. About the same time, in the adjoining county of Hendrick, Mr. James Sigerson established a nursery near the present village of Avon. He was succeeded by George W. Merritt, who successfully conducted the business for many years, and was one of the exhibitors of fruit of his own growing at the first meeting of the Indiana Horticultural Society in 1840.

The next nurseryman of any note in Hendricks county was the late Major Z. S. Ragan, who began business in 1840, on the old National Road, near Belleville. Later

he removed to Clayton, where his brother, William A., became a partner in the business, and continued it for many years. These were followed by a number of others who were more or less successful as nurserymen and fruit growers.

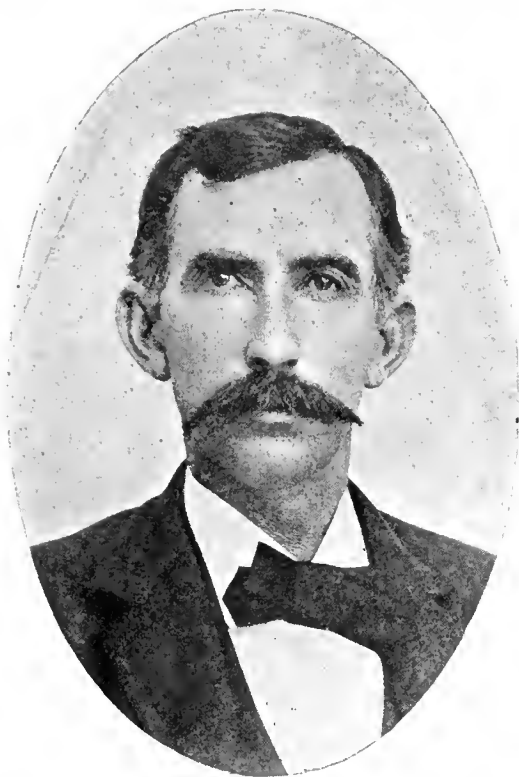
In 1845 the first nursery that is still in existence, was established in Washington county by Oliver Albertson, father of Mr. E. Albertson, the present member of the firm of Albertson and Hobbs. Here he remained until 1875, when he removed to Bridgeport, Marion county, starting with about five acres. The business was soon after taken over by the present firm of Albertson & Hobbs and has steadily grown until at present it contains over three hundred acres, and is the largest as well as the oldest nursery in the state, employing about eighty men during the packing season.

In 1847, Mr. E. Y. Teas started in the nursery business on one-half acre of land, and has continued in the business in various places in the state on a much enlarged area until now, after fifty-eight years of continuous service, he has again narrowed his business down to seven acres, and is making a specialty of growing bulbs. Mr. Teas

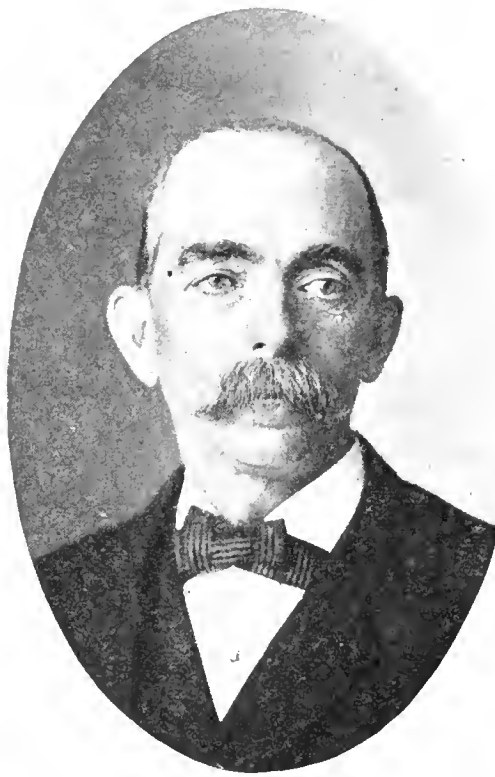
is undoubtedly the oldest active nurseryman in the state.

In 1851 the Knox nursery of Vincennes, was established by Judge Archibald Simpson, father of the present senior member of the firm of H. M. Simpson & Sons. Like most ventures of this kind it had a small beginning, the first planting consisting of one thousand grafts. The business has steadily grown until at present the annual planting consists of about one million grafts and seedlings, and the nursery covers one hundred and twenty acres.

One of the older but smaller nurseries, is owned and operated by



H. M. SIMPSON,
Senior Member of H. M. Simpson & Sons.



EMORY ALBERTSON,
Of Albertson & Hobbs, Chairman Transportation Committee.



W. C. REED
Vincennes, Indiana.
Vincennes Nurseries.

Henry Minnick of Wabash county, and which was established by his father in 1853. Mr. Minnick has never attempted to branch out to any great extent, simply supplying the local trade in connection with his general farming. In 1856 Jesse G. Millhouse of Jennings county, started in the nursery business on one acre of land, and for forty-nine years has been doing a good business.

Space forbids the mention in detail of all those who are now actively engaged in the business but who have started more recently. Some of these older firms are: John Bird & Son of Henry county, starting forty years ago on two acres, now having twenty acres. J. K. Henby & Son, started thirty-three years ago in Hancock county, on a small garden spot and now have sixty acres of stock. Holland & Co., of Marshall county, started thirty-four years ago on one acre and now have twenty. Meredith & Son of Greene county, started on one-quarter acre, seventeen years ago, and now have forty acres. Thomas T. Ward began the nursery business in Vigo county thirty-seven years ago and is still doing a good business. G. N. Moyer, of the Laketon Nurseries, Wabash county, has increased his business from four acres to fifty acres in twenty-two years. Amos Ragle, at Elhona, Greene county, started twenty years ago on one-half acre and now has thirty-five.

One of the younger men in the nursery business is W. C. Reed of Vincennes, who began business on his own account, in 1891, with thirty acres of nursery stock, now has one hundred twenty-five acres, and employs forty men during packing season.

Greene county contains more nurseries to-day than any other county in the state. One of the representative men in this line is W. C. Bennett, who began on one-half acre twenty-seven years ago, and now has sixty acres in stock, and employs about thirty men during the packing season. Altogether the number of nurserymen and dealers, at present doing business in the state is about one hundred sixty, or an increase of one hundred fifty-nine in sixty years; and the acreage of nursery stock has increased from two or three acres to about two thousand acres at the present time; giving employment to five hundred men a good portion of the year. The sales have increased on an average about in proportion to the increase in acres planted. This would indicate that the nursery business in Indiana, as elsewhere, is recognized as one of the great industries of this rapidly growing commonwealth. Many of the facts concerning the pioneer nurserymen should be credited to the pen of our old Hoosier friend, W. H. Ragan, formerly of Greencastle, now of Washington.

Among the Growers.

HARD ON STRAWBERRY GROWERS.

Advices from New York and Boston the first week of May reported a most deplorable condition of the strawberry market. It appears that the refrigerator car trust, which absolutely controls the transportation of perishable fruit from the South and Southwest, failed to deliver the strawberries in good condition. In one case the Pennsylvania Railroad Company delivered eleven carloads of strawberries in one day at Jersey City in such a demoralized condition that they could not be put upon the market, and were simply thrown upon the dump heap. This is only a sample of what happened to hundreds of carloads and the loss up to the fifteenth of May was estimated at \$3,000,000. This loss falls largely upon the growers.

The inadequate facilities offered by the cold storage lines to shippers of strawberries has resulted in the institution of a considerable number of suits by the dissatisfied shippers. Suits for breaches of contract have been instituted in several places.

The *New York Packer* cites a number of cases where shippers and growers have lost heavily by inability to secure cars to forward the fruit to market.

The Piedmont Orchard Company has been incorporated at Linden, Va., for the purpose of growing fruits and farm products. Capital stock, \$25,000. Officers, W. J. Phillips, Jr., Pres., Urbana, Ill.; J. L. Phillips, Sec., Blacksburg, Va.; A. B. Bishop, Linden, Va., manager.

Georgia peach growers estimate that two or three thousand cars of peaches will be handled this year, in excess of that which was shipped last year. This is rather remarkable in the face of the

reports that were made the latter part of the winter to the effect that the cold snap had cut off the fruit in the central and northern part of the state.

Reports from Oregon indicate favorable conditions for a large crop of fruit. The blossoming period which occurred during the first week of April was all that could be desired as to conditions of weather and amount of blossom, so that Oregonians are optimistically disposed in regard to the season's outlook.

Tasmanian apples began to arrive in British markets about the first of April. It is estimated that the output for this year will amount to something less than 300,000 boxes. It is to be remembered that Tasmania ships all her apples in boxes.

Brown Brothers Nursery of Rochester, N. Y., has offered to supply Penfield, N. Y., with sufficient shade trees to plant eleven miles along the dugway road. They will do this on condition that those interested in the road will find means to set them out properly.

Chase Brothers Company, Rochester, N. Y., are making extensive additions to their lands and buildings. Nine acres of land have been purchased in Brighton, upon which two extensive frost proof packing houses and storage buildings will be erected. The improvements will approximate an expenditure of \$50,000.

The Illinois Central Railway Company is operating over 1800 refrigerator cars, and about the same number of fruit cars. All these fruit trains are scheduled to arrive at Chicago about daybreak. The fruits and vegetables arrive in approximately the following order from March until August: strawberries, radishes and lettuce, peas and onions, turnips, beets, carrots, potatoes, beans, squashes, tomatoes, melons, peaches.

This is the busy month with the small fruit growers in Texas, Tennessee, and South Carolina. Strawberries are moving out, vegetables approaching marketable stage, and late crops being put in. The fruit grower and trucker must step lively.

A. B. Barnes, Waupaca, Wis., writes that he is convinced from actual experience that the piece-root graft using long scions and short roots grown from selected crab seed produces the best trees for the Northwest. He is also in favor of topgrafting on hardy crab stocks of the type of Virginia or Martha.

At a recent exhibition of the Royal Horticultural Society, a new variety of orchid was sold for 500 pounds. This species, *odontoglossum crispum*, was discovered not long ago in Colombia, South America. There are more orchid specialists in England than there are in America.

Mr. Jones, of the firm of Conard & Jones Co., of West Grove, Pa., visited Rochester nurserymen about the middle of the month.

J. Wragg & Sons Co., Waukegan, Ia., write that "Our season just closed has been a reasonably successful one. The outlook in the West at the present time is very flattering, as the stock went through the winter in excellent condition, and the indications are that the season from an agricultural standpoint will be favorable."

William Satter, representing Erbinge and VanGroos, nurserymen of Boskoop, Holland, has been visiting the nurserymen of Western New York in the interests of the firm he represents. He reports brisk business conditions, and a cheerful reception at the hands of his friends on this side of the water.

Fredonia Nurserymen: The nurserymen of Fredonia were visited about the middle of the month by the business manager of the NATIONAL NURSERYMAN, who reports that sales have been excellent in that part of the state, and that the outlook is cheering for a successful season for growth of nursery stock. This is one of the parts of the state which it is a special pleasure to visit. Geniality is the characteristic of nurserymen generally, but is especially marked in the make-up of the well known Mr. Josselyn, the members of the Hubbard Co., and other representative men of the section.

GOOD WORK OF F. W. KELSEY.

The New York papers tell us that Mr. Frederick W. Kelsey has been lending his good services to the public schools of the Oranges in New Jersey. At the arbor day exercises in the Orange High School recently, Mr. Kelsey spoke on the Essex County park system, the planting of trees on highways, and on forestry matters generally. The municipal improvement committee participated in the arbor day celebration, which Mr. Kelsey was assisting at by precept and example.

WEST BADEN MEETING.

ADDRESS BY ASSISTANT SECRETARY OF AGRICULTURE, WILLETT M. HAYS.

The indefatigable program committee is still at it. The latest announcement is that two distinguished men, past and present of the United States Department of Agriculture, will address the convention. Assistant Secretary of Agriculture, Willett M. Hays is to represent Secretary Wilson and speak on Plant Breeding. We are also glad to announce that former Secretary of Agriculture and a former President of the American Association of Nurserymen, the Hon. Norman J. Coleman of St. Louis, Mo., confidently expects to be present and may be expected to appear on the program.

The outlook for a record breaking attendance is exceptionally bright. Lay aside your business cares and join the procession. An enthusiastic member says, "I shall expect not less than five hundred in attendance—and no one will regret coming."

DENVER AND RETURN \$38.00.

Official train, Seventh International Epworth League Convention, Denver, July 5th to 9th, 1905, under the supervision of Genesee Conference Epworth League Transportation Committee, D. L. Tuttle Chairman, Rev. P. A. Crow, Secretary, John H. Brogan.

Special train will leave Buffalo 5:30 p. m. on July 3rd. via Wabash System running solid to Denver. Special low rates made for this party for side trips from Denver. Train will be composed of Tourist sleepers, Standard sleepers and Dining cars. The route for the Niagara Frontier Epworth League Special has been selected by the Transportation Committee, and all members and their friends should join this party, as complete arrangements have been made for the lowest possible railroad rates and hotel accommodations at Denver. Write for itinerary giving full information.

JAMES GASS,
N. Y. S. P. A.

R. F. KELLEY,
G. A. P. D.

Wabash Railroad, 287 Main Street, Buffalo, N. Y.

LEWIS AND CLARK, CENTENNIAL EXPOSITION, PORTLAND, OREGON

From May 22nd to September 30th the Wabash System will sell round trip tickets to Portland, Ore., Seattle, Tacoma, Bellingham and Everett, Washington, Victoria and Vancouver, B. C., at low rate of \$69.50. Tickets good to return ninety days from date of sale. Choice of direct lines in either direction or diverse route at no extra expense. On May 22nd, 23rd, 24th, 25th, 29th, 30th and 31st. Rates to Portland via Los Angeles or San Francisco or to Los Angeles or San Francisco via Portland, \$80.50, good for ninety days. The Wabash System, the Popular Line for Pacific Coast Tours.

For full information write,

JAMES GASS,
N. Y. S. P. A.

R. F. KELLEY,
G. A. P. D.

287 Main Street, Buffalo, N. Y.

PERSONAL AND GENERAL.

WHO ANSWERS?

"We are interested somewhat in pecan culture, and would appreciate it if you can refer us to some reliable nurseryman that would give us trees true to name, and the name of some book or paper that will give us information."

The above is a type of inquiry that frequently comes to this office. Nurserymen on reading this will realize the embarrassment of the diffident editor who attempts to answer such a question. We therefore place it in our reading columns and will let the answers come from those who are qualified to speak.

A. Willis of Ottawa, Kansas, writes that "I shall go to the convention if it is at all possible, because I shall be anxious to see the large number of good friends and men with whom I have to deal from year to year. I feel sure that the meeting will be an exceptionally pleasant and profitable one."

LEGISLATION.

PENNSYLVANIA: The Pennsylvania legislature has passed an act providing for the protection of trees, shrubs, vines, and plants against destructive insects and diseases. The act provides that no person shall knowingly distribute plants infested with San Jose Scale, crown gall, black knot, or peach yellows. It provides that the Secretary of Agriculture shall arrange for the inspection of orchards and grounds and the furnishing of a certificate. It makes a misdemeanor of shipping goods without certificate. The certificates of other non-resident inspectors is accepted. Infested nurseries or stock are to be controlled by the Department of Agriculture. The Department has power to treat and charge to owner cost of such treatment, if he refuses on notification to treat diseased stock himself. The sum of \$30,000 has been appropriated for carrying out the provisions of the act.

CATALOGUES RECEIVED.

Arthur Cowee, Meadowvale Farm, Berlin, N. Y. Catalogue of Groff's New Hybrid Gladioli.

The Templin Co., Calla, Ohio. Catalogue of vegetable and fruit seeds, as well as fruiting plants and ornamental shrubs.

J. G. Harrison & Sons Nurseries, Berlin, Md., A well illustrated spring catalogue and price list for 1905.

Ellwanger & Barry, Rochester, have issued their catalogue for 1905. This is a very fine example of the printer's art, and artistically displays the fine line of stock offered by this substantial firm.

Thos. B. Meehan & Sons, Philadelphia, Pa., show by their catalogue for 1905 that they are keeping strictly in the front rank in the matter of quality of goods and diversity of products.

Dingee & Conrad Co., West Grove, Pa., New guide to rose culture for 1905.

W. T. Hood & Co., Old Dominion Nurseries, Richmond, Va. Catalogue of fruit and ornamental trees.

The New Haven Nurseries, New Haven, Mo., issue a very attractively gotten up catalogue, which contains not only pictures of the homes of the proprietors and of nursery stock, but characteristic fruit scenes in orchards of fruit growers of Missouri. This is a very desirable innovation, and the originators of the idea are to be congratulated.

Andorra Nurseries, Chestnut Hill, Philadelphia, Pa., Price list of specimen trees, shrubs, roses, and fruit. Spring, 1905. For those who wish to secure fine individual specimens of a large variety of trees and shrubs this catalogue will be very useful.

THE NATIONAL NURSERYMAN is in receipt of an excellent 8x10 photograph of Professor DeVries, forwarded by the Open Court Publishing Company of Chicago.

An interesting catalogue entitled "Choice Trees and Hardy Shrubs," is at hand from Frederick W. Kelsey, 150 Broadway, New York. It contains half tones of the leading ornamental shrubs and shade trees.

"I am glad to report that trade conditions in the Northwest have been very satisfactory for the past year. We are having a tremendous amount of rain at the present writing which has a depressing effect on trade in many sections; but, on the whole, prospects for the coming year are very good. The planting season in this locality was never better and stock lined out in nursery row is looking well."

E. M. SHERMAN,

—E. Albertson, of the firm of Albertson & Hobbs, called upon western New York Nurserymen the last days of May.

—John Morey, Dansville, N. Y., called at the office of NATIONAL NURSERYMAN last month.

—J. G. Harrison & Sons are issuing a new Wholesale Price-List in which they are making a specialty of peach, apple, pear, also buds of the bud list for July shipments.

KANSAS HORTICULTURAL SOCIETY.

The summer meeting of the Kansas Horticultural Society will take place at Wichita, June 7-8. An attractive program has been prepared. The topics have been supplied entirely by teachers or practical fruit growers who are residents of the state.

The National Nurseryman

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VICE-PRESIDENT AND EDITOR, JOHN CRAIG
SECRETARY-TREASURER AND BUSINESS MANAGER, C. L. YATES

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., JUNE, 1905.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, E. W. Kirkpatrick, McKinney, Tex.; vice-president, C. L. Watrous, Des Moines, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.
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Programme—Harlan P. Kelsey, Boston; Herbert S. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.
Publicity—Ralph T. Olcott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.
Exhibits—R. C. Berckmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.
To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

AMERICAN NURSERYMEN'S PROTECTIVE ASSOCIATION—President, R. C. Berckmans, Augusta, Ga.; vice-president, A. L. Brooke, secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.
NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y. Meets annually in June.
AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.
EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y. Meets annually in January.
WESTERN ASSOCIATION OF WHOLESALE NURSERYMEN. President, Peter Youngers, Geneva, Nebraska; Secretary, D. J. Holman, Leavenworth, Kansas.
SOUTHERN NURSERYMEN'S ASSOCIATION—President, W. T. Hood, Richmond, Va.; vice-president, Henry Chase, Huntsville, Ala.; secretary, J. C. Hale, Winchester, Tenn. Meets at Asheville, N. C., in August, 1904.
SOUTHWESTERN NURSERYMEN'S ASSOCIATION—President, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A. Taylor, Wynnewood, Ind. Terr.
TEXAS NURSERYMEN'S ASSOCIATION—President, E. M. Kirkpatrick, McKinney, Tex.; secretary, John S. Kerr, Sherman, Tex.
PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.
PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.
NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

We note that there is a disposition on the part of California nurserymen to copy in some measure, the customs of the Eastern planters in regard to mixed and double planting in orchard-

PLANTING MIXED ORCHARDS.

In California, the walnut tree, which is slow in coming into bearing, is set as a standard, or permanent, while apricots, peaches or prunes are used as fillers. An instance of the success of this method is furnished by the experience of W. C. Eyman of Anaheim, California, and chronicled in a recent number of the "Pacific Fruit World." Mr. Eyman planted walnut trees fifty feet apart and apricots between. He harvested this year, on six acres, seventy-two tons of apricots, for which he received the sum of \$1,740. The plan of course is to remove the apricots when the walnuts come into bearing or when the former begins to crowd the latter.

There has been much complaint in recent years of the quality of fence wire and wire nails, made under the auspices of the great steel companies of the country. Several of the agricultural papers have been agitating a movement which was expected to culminate in a critical examination of the quality of these industrial products. It is now announced that Sec. Wilson of the U. S. Department of Agriculture has taken the matter up. Samples of wire and nails are being collected from the farmers throughout the country. These samples are to be forwarded to the Division of Tests, Bureau of Chemistry, U. S. Department of Agriculture, Washington. Each sample should be accompanied by a statement of its age and history. This looks as if the Department of Agriculture, as well as the Department of Commerce and Labor, was going to keep an eye on the steel trust.

INVESTIGATING QUALITY OF STEEL WIRE AND NAILS.

Circular No. 60 issued by the office of Experiment Stations at Washington gives a report on this subject by Director True. This report is timely, and emphasizes the advance that is being made in this direction. Not only are people gradually being educated to the idea of agriculture having a place in the rural schools, grammar and high, but steps are actually making for the early introduction of agriculture in the schools of many of the states. New York State is taking a prominent position in the movement. Arrangements are now making whereby agriculture will be placed in high schools of the state as an optional study, and will be open to students on the same basis as the natural sciences. It is probable that before long definite agricultural courses will be offered by high schools. When this is done the high schools will become important feeders to the colleges of agriculture. Students will be directed towards them, instead of being led away from them to the arts and classical courses.

THE TEACHING OF AGRICULTURE IN THE RURAL SCHOOLS.

Each year sees the region of adaptation of the alfalfa plant gradually widening. It is only a short time since it was relegated exclusively to the arid and semi-arid regions of the Pacific Coast and the middle West. Experiment Stations have of late demonstrated its usefulness in the East, and now we learn from Bulletin 114 of the Vermont Experiment Station that it has been grown successfully in a few

THE ALFALFA PLANT.

places in that frigid region. Failures in the North are ascribed to physical conditions, sourness of the soil, lack of available plant food, and the right kinds of nitrogen gathering bacteria. Ice covering a snow sheet will also smother the alfalfa. It is not generally known that careful experiments were made in New York State with this plant more than one hundred years ago. The results of these experiments may be found in the early reports of the New York State Agricultural Society. It was a wise man who said there was "nothing new under the sun."

It is perhaps not the cry in New York more than in other states, but the fact that the educational phases of the question have received such an impetus in this state in the last few months, has placed the whole enter-

GOOD ROADS THE CRY.

prise on a more promising basis than formerly. It has now a distinct educational aspect, for the last supply bill passed by the New York State Legislature carries with it the sum of \$10,000 for the establishment of a good roads school at Cornell University. This marks the inception of an important departure in the good roads movement. As a corollary to this important step, a good roads conference was held at Cornell May 16-19. At this conference representatives of the State Engineer's Department at Albany, the Bureau of Farmers' Institutes of the state, the state Department of Agriculture, the leading representatives of the agricultural papers of the state, in addition to the champions of good roads, headed by W. Pierpont White of Utica, were present. Important additions to the literature of good roads were made in the papers presented. The action of the Legislature in supporting the educational aspects of the work was commended and the conference recommended that a committee should be appointed to confer and co-operate with the authorities of Cornell in the preparation of a course of study which should include all the important economic and esthetic aspects of this great subject. The Empire State has now taken an important step on a great fundamental question, one which will probably have more to do with the checking of the gradual depreciation of farm values in this state than anything else. Where good roads have been installed, there, farm values have either increased or there has been no decline.

Experience and investigation both support the theory that lands become impoverished, or rather lose their crop producing capacity because of the using up, or burning out of vegetable matter, humus, rather than the actual depletion of mineral plant foods. We are of the opinion therefore that the fertility problem of the nurserymen is essentially the same as that confronting the farmer; in other words, that physical conditions of the soil, as affected by drainage, as influenced by amount of vegetable matter affecting its fiber, are more important than the probable amount of potash or phosphoric acid present.

The cultivating season is now on. Nurserymen can give farmers points on cultivating and then win hands down. They do not wait for the weeds to appear in order to understand that the nursery needs tilling, but the cultivator is kept going, so that the surface mulch may be preserved and the soil moisture thus retained. This kind of soil management means greater activity in the soil, which in turn means the

using up of relatively larger amounts of humus. The more tillage therefore, the more plant food made available, consequently the more growth. It comes back then upon the soil and the nurseryman and resolves itself into a problem of maintaining the productivity of his land through favorable physical conditions of the soil, and plenty of vegetable matter.

Nurserymen do not favor the sowing of secondary crops between the rows of trees. We would like to see an experiment tried this year. We would like to see a number of nurserymen sow in one of their blocks of nursery trees two rows of cow peas in one plot, in each interspace; in another plot two rows of vetch; in another two rows of mammoth clover. A single row of either of these crops would be much better than none at all in our belief. The seed could be put in with a Planet Jr. drill, and being put in rows, the ground could be cultivated with finger cultivators without tearing out the secondary crop. It is not likely that the installation of a crop of this kind would invite mice or other rodents. When plowed under the next Spring, the amount of fiber, vegetable matter and actual nitrogen added to the soil would be very considerable, in our opinion worth much more than the cost of the seed and the incidental care necessary to grow it.

The Cornell University Experiment Station has been interested during the past winter in testing the influence of the acetylene light in promoting plant growth. It is a notorious fact that in many parts of New England and New York the months of November, December and the forepart of January are trying periods for the greenhouse man. It is at this time that he struggles with the contradictory problem of insufficient light and the necessity of ventilation and watering.

ACETYLENE LIGHT AS AN AGENT FOR FORCING PLANTS.

During the past winter, experiments have been conducted by M. J. Iorns, a graduate student in the Department of Horticulture at the forcing houses of Cornell University, having for their purpose a comparison of the influence of acetylene and electric light on plant growth under different temperatures. In a recent number of the Acetylene Journal a condensed statement of the gross results obtained are presented. It was found that acetylene light, approximating closely the quality of the sun's spectrum, exerted an energetic influence on plant growth. Plants grown under acetylene light vegetated much more rapidly than others not under its influence and those grown for cut flowers reached the blooming stage considerably in advance of their competitors grown under ordinary sunlight only. Easter lilies grew twice as high and bloomed ten days to two weeks in advance of those outside of the acetylene lighted area. The growth of radish and lettuce was greatly hastened, and the yield in a given time much increased. The branches of flowering shrubs responded in a marked degree to the influence of the light. Those under acetylene light bloomed several days in advance of those in the same temperature and influenced by day light only. It was also proved that the plants under the influence of acetylene light only, would form chlorophyll as if grown in sun light.

Whether there is a commercial future for acetylene in the forcing of plants is a problem that awaits solution in the light of more comprehensive investigation.

The beauty of the spring of 1905 in Central New York, at any rate and probably all the eastern country, should long

be remembered. Those who observed the march of events will remember that the trees were touched by unusual warmth quite early in the season. Fortunately, this was not sufficient to burst the buds. Then came a long period of low temperature, during which development was slow but of a substantial preparatory character; then came the warm rains accompanied by higher temperatures; then came the true awakening of the trees. Who has ever seen a more beautiful blooming season? Not only was the season itself exceptional in the amount and luxuriance of bloom, but the individual blossoms were extraordinarily beautiful. This was particularly true of apples and pears. In Central New York, Japanese plums and peaches were injured here and there, slightly it is true, but sufficient to mar the normal abundance of the bloom.

This is the season of the year, when one can forgive the effusions of the spring poet, when one can read the inspiring words of Emerson or Ruskin, with deep satisfaction, when one can feel with Kingsley that he is never alone. "On the heaths and moors where I have so long enjoyed the wonders of nature, I have never been, I can honestly say, alone, because when man was not with me I had companions in every bee and flower and pebble; and never idle, because I could not pass a swamp or a tuft of heather, without finding in it a fairy tale, of which I could but decipher here and there a line or two, and yet found them more interesting than all the books save One which were ever written upon earth." So we feel with Lowell that:

"In June it is good to lie beneath a tree,
While the blithe season comforts every sense,
Steeps all the brain in rest, and heals the heart,
Brimming it o'er with sweetness unawares,
Fragrant and silent as that rosy snow
Wherewith the pitying apple trees fills up,
And tenderly lines some last year robin's nest."

A good deal of space is accorded to this subject in recent issues of the agricultural journals. The discussion has been revived because of the statement of Professor Alwood, late horticulturist of the Virginia Experiment Station who announces that he had successively coated the stems of a considerable number of young fruit trees with white lead paint and that no injurious effects had resulted—further that borers were prevented.

"The Rural New Yorker," has interested itself quite warmly in this scheme of heading off borers and mice. There, however, seems to be a conflict of experiences by those who have tried it. One man from Pennsylvania reports that 100 four or five years old orchard trees so treated, promptly died. On the other hand, there are others that assert that no ill results have followed. The originator of the painting method, hedges to the extent of saying that only pure white lead is to be used and that this must be mixed with linseed oil of the best quality. It also appears that painting during the dormant season is, if not the only time, the best time to apply it. This is in contradiction to the experience of some who have used coal tar which has proven destructive when applied during the dormant season but not injurious if applied in the spring just about the time that the growth commences. In other words

the growth activity seems to throw off and prevent the tree from absorbing any injurious influence of the tar; whereas, if applied during the dormant season this absorption and injury is likely to occur. Why this is not so in the case of the paint is not clear. The whole question is yet an open one and we would advise those who think of trying it to do so on a small scale to begin with.

Doings of Societies.

CANADIAN NOTES.

The Toronto Market Gardeners' Association held a very successful banquet on March 13th.

The vegetable growers from Toronto and the vicinity of Hamilton met recently and effected a tentative organization to be known as the Vegetable Growers' Association of Ontario. H. B. Cowan, Toronto editor of the *Canadian Horticulturist*, is provisional secretary. The draft of the constitution prepared will be submitted to a general meeting of the representatives of the vegetable interests of the province to be held later.

Canadian Grape Interests: A number of leading Canadian grape growers recently met and held a conference with the provincial ministers of agriculture of Ontario, with a view of inaugurating a series of careful experiments for the suppression of grape pests such as insects and fungus diseases. The black rot of the grape has been particularly injurious in the Niagara district for the past year or two, and growers are becoming somewhat discouraged.

A movement is on foot among the fruit growers of the Niagara district making for the establishment of a horticultural school and experiment station for their especial benefit. The fact that the experiment stations and the college of agriculture are situated in districts where the fruit possibilities differ radically from those obtaining in the Niagara district strengthens the argument and contention of those who are promoting this enterprise. The Ontario Department of Agriculture has been petitioned to further the proposition.

The prospects for a fruit crop in the Niagara district, where peaches, pears, plums, and grapes are the leading crops, are excellent. The buds came through the winter in excellent condition, and the blooming period was attended by weather of a favorable character.

MEETINGS REPORTED AND PENDING.

The Florida Horticultural Society met at Jacksonville, May 9-11. The attendance was large, and the meeting profitable. Aside from the papers and discussions, a visit by the members of the society was made to a fertilizing plant, where the different brands of fertilizers were made, and where the various processes connected with their manufacture were exhibited. Mr. G. V. Taber positively declined to continue in the office of president, which he had held for nine years. The new officers are: President, C. T. McCarthy, Eldred; vice-presidents, F. D. Waite, Geo. W. Wilson, Dr. Geo. Kerr; secretary, E. O. Painter, Jacksonville; treasurer, W. S. Hart; executive committee, Rev. Lyman Phelps, E. S. Hubbard, Geo. L. Taber.

The *Country Gentleman* schedules the following Horticultural societies for meetings from June 13 to August 16:

Missouri, Versailles, June 13, 15.

American Nurserymen, West Baden, Ind., June 14, 16.

National Seedsmen's Association, Alexandria Bay, June 21, 22.

Apple Shippers, Put-in-Bay, O., Aug. 2, 3.

Indiana, Henryville, Aug. 9, 10.

American Florists, Washington, D. C., Aug. 15, 18.

New York Fruit Growers, Penn Yan, Aug. 16, 17.

Southern Nurserymen, Norfolk, Va., Aug. 16, 17.

The Fruit and Truck Growers' Association of Texas holds a special session in Tyler on June 23, 1905. This meeting is for the purpose of welcoming the excursionists brought into the country by the Cotton Belt Railway. Tyler is located in the center of the most important fruit belt in Texas, where a large number of the big orchards we hear about are located. An interesting session is expected, and the excursion through the fruit region will undoubtedly be most profitable and pleasant.

Obituary.

President Henry Hall Goodell of the Massachusetts Agricultural College died on April 23rd. He was president of the college since 1886. At the time of his death he was on a leave of absence in search of health. President Goodell has taken an important part in promoting agricultural education, through his connection with the Association of Agricultural Colleges and Experiment Stations.

There died at New London, Conn., on February 17th, John Spalding, one of the veteran gardeners of New England. Mr. Spalding was 91 years of age at the time of his demise. He was born in Perthshire, Scotland, but spent most of his life in this country. As a gardener, he was well known throughout New England.

William Paul, an English rosarian of note, died on March 31st, at the age of 83. Mr. Paul had spent more than half a century in his rose garden, and was one of the best authorities on the rose in recent years. He was a contemporary and a co-worker of the late Dean Hole, a Fellow of the Linnean Society and one of the oldest Fellows of the Royal Agricultural Society of England.

James Rough, a prominent florist of Boston, died on May 2nd, at the age of 57 years. Mr. Rough was a Scotchman, and has been in the United States for the past thirty-two years. He was one of the progressive men in the field of floriculture in New England.

Frank A. Pierson: The floricultural world lost a progressive young man, when Frank A. Pierson, of Cromwell, Conn., died on April 29th, of spinal meningitis. Although but 28 years of age, he was well established in business, and had become a strong factor in commercial floriculture. He was the son of the well known florist and nurseryman, A. N. Pierson. He not only took an interest in floriculture but in municipal affairs, and last fall was elected to the general assembly by the Republican party.

Note and Comment.

THE SPENCER SEEDLESS APPLE EXPOSED.

A London(Eng.)letter says that the seedless apple so widely and systematically advertised in this and other countries has been pronounced a fraud by experts. Recently great publicity was given to the fact that Messrs. Shearn of London had purchased a pair of these apples from a Covent Garden salesman for three pounds; two others having been sent to King Edward. The specimens were of the Colorado Spencer seedless variety. Certain skeptics challenged the Messrs. Shearn to open theirs. This was done before experts, and they were found to contain as many pips (seeds) as, and a larger core, than most apples. Messrs. Shearn stated they would bring an action against the firm who sold the apples, for misrepresentation.

DOCTORING FRUIT TREES.

There has been a good deal said in recent issues of the horticultural press regarding the prevention of various plant diseases by the insertions of nostrums of different kinds into the trunks of the trees themselves. In the April issue of the NATIONAL NURSERYMAN and a recent number of the *Rural New Yorker* condemnatory evidence against the use of such remedies is given. For instance, it is useless to suppose that by boring a hole into a tree and filling it with sulphur, iron filings, charcoal, or other insoluble material, that the vitality of the tree is likely to be influenced except injuriously. Yet individuals are going around the country and claiming to cure plant diseases by such treatment. The writer in the *Rural New Yorker* actually tried the experiment, and carried it to a conclusive finish, in that the treated trees not only did not improve but died much more promptly than others affected in the same way, but not treated.

CO-PARTNERSHIP NOTICE.

Notice is hereby given that the co-partnership heretofore existing between Josiah Hoopes, Abner Hoopes, and George B. Thomas, was dissolved on July 1st, A. D., 1904, by the death of Josiah Hoopes.

The undersigned having purchased the interest of the estate of the said Josiah Hoopes, deceased, and the interest of George B. Thomas, in all the assets, good-will and business of the former firm of Hoopes, Brother and Thomas, will continue the business under the firm name of Hoopes, Brother and Thomas, at West Chester, Penna., and at Stephen Girard Building, Philadelphia, Penna. All liabilities of the old firm will be paid and liquidated at West Chester, Penna., where all the accounts due to the old firm should be paid.

ABNER HOOPES,
WILMER W. HOOPES,
CHARLES E. CATTELL.

West Chester, Pa., May 1st, 1905.

Fruit and Plant Notes.

THE LOQUAT.

This curious fruit is very interestingly described and figured in the issue of May 13th of the *Pacific Fruit World*. One of the leading varieties of the fruit was originated by Mr. C. P. Taft of fruit fame in California. This is the Advance, and was one of many seedlings grown by Mr. Taft. The loquat is a Japanese fruit, and was introduced into the California market about twenty years ago. It is increasing in popularity and economic importance.

JAPAN OLEASTER.

The Japanese Oleaster is becoming popular in the New England states. The fruit is ornamental and the leaves being smooth and dark green on the upper surface with silver white underneath, and persisting late in the fall, are very attractive in contrast to the bright red of the fruit. The plant has an additional value in that it is well adapted for pot culture.

MINKLER APPLE.

Form, oblate with conical tendency, regular; size, medium to large; color, yellowish green, washed with brilliant or light red, numerous large light dots; skin smooth, slightly greasy; cavity broad, medium depth; stem, short, stout; basin, broad, very shallow; calyx, large open; flesh, yellow; quality, fair, mild subacid, sprightliness; texture, rather mealy; core, closed; seed, often imperfect, light brown, long; season, early winter. Not exactly winesap like in all its characteristics. Eye open, winesap closed. An attractive apple of rather poor quality. Originated in Illinois and would be much more generally grown if it were a better bearer. It appears to belong to the winesap group.

BABY RAMBLER ROSE AS A FORCING PLANT.

Florists are giving considerable attention to the Baby Rambler as a forcing plant for Easter. *Horticulture* for May 13th records the doings of W. R. Harris, who cut back rambles in six-inch pots, "which had already flowered at Christmas," and again forced them so that they bore at Easter from six to ten clusters of flowers larger than the best Crimson Rambler. "The prediction is then made that it will entirely replace the parent plant as an Easter staple." Other florists are enthusiastic in their belief that the Baby Rambler is going to take a very important place as a greenhouse crop at that particular season of the year.

ROSA RUGOSA.

The value of this rose lies in its extreme hardiness, its handsome luxuriant foliage, and the strikingly attractive character of its buds. The flowers themselves are single, lack lasting qualities, and as a rule are not specially beautiful in color, but this rose seems to be destined to be the parent of very important groups of hybrids of great value for outdoor culture. It has already been crossed with the R. Carolina, lucida, Californica, ferruginia, Virginiana, blanda, lutea, and several hybrid perpetuals. Several of these hybrids have already made a place for themselves in nurserymen's lists and in the gardens of interested amateurs. For the West and the Northwest particularly this race of roses is of unusual value and promise.

Correspondence.

INTERESTING REVIEW OF TRADE CONDITIONS WITH OTHER NOTES.

NATIONAL NURSERYMAN.

Enclosed our check for NURSERYMAN. We have had best trade in years, and up to our eyes in trees. With best wishes for the paper,

Blackwell, Okla.

J. W. TETIRICK & SON,

GOOD IN UTAH.

The season just closed has been one of heavy business. Elberta peach and Jonathan apple have been our heavy sellers, with an increased demand for sweet cherries.

Provo, Utah.

PROVO NURSERY.

GREAT STRAWBERRY TRADE.

Getting out June statements and arranging details to leave for the West Baden Springs meeting (that's proper, Ed.) has kept us busy, hence the delay.

Our packing house is cleaned, many thousands of peach, apple and pear were handled the past season aggregating more than one hundred cars. Our strawberry beds containing millions in March have been reduced to less than on acre of plants. Weather was cool and plant trade heavy. Our present planting was never better in growth, plenty of rain and conditions favorable. Only a fair stand of peach, Apples are putting on a good growth and will be worth more money than last season. Keiffer pear in grafts and buds doing well. Our sixty acres of regular plant of strawberries are promising.

Demand: We are having more inquiries for peach, apple and pear and prospects for a good sale look promising. We feel sure prices will be in advance of last season on all stock.

We were not injured by the freeze in any way. Our poor stand of buds comes from the dry late season during budding.

Berlin, Md.

J. G. HARRISON & SONS.

SATISFACTORY IN INDIANA.

EDITOR NATIONAL NURSERYMAN.

In regard to the business this spring, the volume has not been as heavy as it has been some times, but the supply of stock was not as large, and in proportion to the supply of stock, trade has been exceptionally good. Many kinds of stock have been sold very close; in fact there will be much less surplus than there has been for many years, and we think this is the situation with most all of the nurserymen. They will be able to celebrate the wind-up of their packing season with much smaller bonfires than has been usual the past few years. Cherries, peaches and plums have sold exceptionally close, and apples have also sold well. There seems to be but, little surplus in pears, except a few varieties. Small fruits have most of them been cleaned up very closely and the demand for ornamental stock has been good. So that we can see no reason why the nurserymen should have much room for complaint this year, but ought to be able to attend the convention at West Baden with the satisfaction of a very good year's business have been done, and prospects good for the coming year.

Bridgeport.

ALBERTSON & HOBBS.

IOWA COMFORTABLE.

You will pardon the seeming neglect shown on my part in not making a report to you earlier in the season regarding the outlook of the nursery business in this state. As you well

know, the heavy rush of our work begins in March and is now just letting up so that I have not had time to make proper investigation and give anything like definite report before this time.

The condition of the fruit crop is very encouraging here, especially so from the summary report issued by the Secretary of the State Horticultural Society. The low percentage of plums I think is due to the extremely cool weather which we have had and the possible damage from freeze in April. We had a very few warm days in March which forced the buds and while the cherries and apples were not pushed out as badly as plums, yet I think that there was a slight damage to all fruit bearing trees.

The outlook for trade is excellent.

Des Moines, Ia.

DESMOINES NURSERY CO.

AN APPRECIATION FROM MISSOURI.

We desire personally to thank you for the splendid May number of NATIONAL NURSERYMAN. It contains so much practical matter of interest to propagators that we have ordered a number of extras for our employees in our several branch plants.

Louisiana, Mo. STARK BRO'S NURSERIES & ORCHARDS CO.

The NURSERYMAN for May is read with much interest. Our members will thank you for your efficient and timely work in advancing their every interest. Your columns are highly valued.

McKinney, Texas.

E. W. KIRKPATRICK, PRESIDENT.

ONTARIO.

SHORTAGE OF PEACH AND CHERRY—WINTER INJURY.

Nurserymen in Ontario had one of the finest springs for getting out stock, I think I ever remember. Most lines were cleared up pretty well except apples. There was a considerable surplus of them, I think, in the country. At any rate speaking for myself that was the condition.

For next season I anticipate a very great shortage of peach, as for some reason or other the seed failed a year ago. This seems to be universal, as far as I have observed. Also I think there will be a shortage of cherry.

Prospects are at the present time for an enormous fruit crop. All kinds of fruit trees are loaded with blossoms, especially cherries, peaches, plums and pears. The effects of the severe winter of 1903-4 are still visible this spring. The young plum orchards immediately outside the peach belt were mostly destroyed and many blanks occur even inside the peach belt. These orchards apparently were injured in season 1903-4. A great many of the trees are dead this spring that appeared to be alive through last season.

We also find a sprinkling of grape vines, which bore very heavy last year, are dead this spring. Evidently the result of the same freeze of 1903-4, as the past winter has been a very favorable one, colder than usual but the ground was covered with snow all winter.

Winona.

E. D. SMITH.

AMERICAN POMOLOGICAL SOCIETY.

This important national organization will hold its next biennial meeting in Kansas City, August 8-10, 1905. The pressure for a meeting in the Middle West has been strong for sometime and it is in deference to the desires of Western members that the society goes West this year. The Missouri State Horticultural Society (Secretary L. A. Goodman, Kansas City) and in fact all the societies of the Middle West are co-operating to make the meeting a pronounced success.

Quiz Column.

A QUERY ON FUMIGATION FROM CANADA.

EDITOR NATIONAL NURSERYMAN.

SIR—I have just read in your March number Mr. W. Newell's views on fumigation and seeing that he condemns fumigation for San Jose Scale, I would like to ask his opinion as to dipping (not spraying) for that Scale. Is there no mixture known that when used at the proper temperature is a sovereign cure for this pest? It seems to me a shame that twenty-seven thousand (27,000) magnificent two-year-old trees should be deported when dipping should be effectual.

New Westminster, B. C., Canada.

D. M. ROBERTSON, Nurseryman.

REPLY BY PROFESSOR NEWELL.

Mr. Robertson has drawn his conclusions a bit strongly in regard to my views upon fumigation of fruit trees for the San Jose Scale. I am quoted correctly in the March issue and the views expressed therein are my views precisely, and I can only reiterate what is said in Bulletin II, of the Georgia State Board of Entomology, from which the quotation was taken by Mr. Bües. The fact that fumigation with hydrocyanic acid gas is the best remedy for San Jose Scale, should not blind us to the fact that even fumigation itself is not infallible. There are many factors, some of them not always fully controllable, that may prevent the fumigation from being thoroughly effective. If we could always be sure that our chemicals were pure, that they were accurately weighed, that the stock was not packed too tightly or that no limbs came in contact in such a manner as to protect individual scales from the gas, and were we sure that the fumigating room was *absolutely* tight, then we might be safe in assuming that all scales would be destroyed. Of all these points we can never be fully positive and hence no one can conscientiously *guarantee* that stock is free from living scale after having been fumigated.

This is simply a case where we must understand and distinguish between "absolute certainty" and "great probability." The fumigation with hydrocyanic acid gas is not an absolute remedy, but it is the best that has been devised so far. Personally, if my orchard were located in a locality where the San Jose Scale already exists, I would as soon plant infested trees (provided the infestation had not been severe enough to injure the vitality of the trees to any great extent) that had been properly fumigated, as to plant any others. On the other hand if my orchard were located in a country or neighborhood where the San Jose had never been found, I should not care to plant infested trees no matter how many times they had been fumigated, or by whom, as I should not care to take even one chance in a half million of introducing the pest into a locality where it is unknown. I think that in saying this, I am expressing the opinion of the majority of progressive peach growers throughout the South, if indeed not throughout the entire country.

I might add that one of the reasons why fumigation has not always been fully effective has apparently been on account of the adulteration of potassium cyanide with sodium chloride (common salt). The presence of any considerable quantity of common salt in the cyanide results in the decomposition of a portion of the gas evolved by the chemical reaction, and hence less gas, available for the destruction of insects, is obtained from each ounce of cyanide. Some interesting investigations of potassium cyanide have recently been made by the Board of Entomology of Georgia, and the results are published in Bulletin 15 of that Board. This bulletin may be obtained by addressing a request to Prof. R. I. Smith, State Entomologist, Atlanta, Ga.

With reference to Mr. Robertson's inquiry in regard to dipping trees for San Jose Scale, dipping in the lime-sulphur wash before planting has been practiced by a good many southern peach-growers with good success, but in some cases injury to the trees has followed. One such case is cited in Bulletin 14, of the Georgia Board of Entomology, page 30, copy of which is sent you in separate cover.

Shreveport, La.

WILMON NEWELL, Entomologist.

THE MOOT QUESTION OF JUNE BUDS.

EDITOR NATIONAL NURSERYMAN.

I come to you for reliable information about peach June buds and pear grafts. I have not had good success in budding either peach or

pear. Have had some correspondence with Southern Nurserymen who offer me June buds of peach from four to twelve inches for lining out. Now, would the change of latitude be too great? Would they make large healthy trees the next year? If they would I think I could grow them profitably here. Would they freeze more easily than home grown stock, and could I buy Southern grown June budded peach trees large enough for orchard planting grown in Tennessee, all the growth made in same season they were budded, have them shipped here in Fall, heal in till Spring and get good orchard from such trees. Won't the winter freeze them too much while healed in?

And how about buying pears already grafted by concerns that make a specialty of grafting apples and pears? Labor here is high and scarce and if this all can be done successfully I believe I could handle the business in this way more satisfactorily than to do the propagating myself.

Athens County, Ohio.

H. E. S.

FLORIDA JUNE BUDS ARE TREES.

REPLY BY AUBRY FRINK.

I am in receipt of yours of 25th inst. and take pleasure in replying to your correspondence in so far as I am able to give the information wanted.

In the first place, it is necessary in speaking of "June budded peach trees" to have an understanding as to what section of the country the trees are grown in. If your correspondent is referring to Tennessee and sections further north, June budded trees would mean as a rule small spindling switches—nothing more. In the lower South it would, however, have a very different meaning. With us, June budded peach trees mean trees ranging in height from one to eight feet, with a preponderance of them above four feet if they have been given the proper attention. Summer budding with us is the only method that we practice of propagating peaches as we have found by many years experience that we can grow summer budded peach trees as large as we want them or as large as they will be salable. In fact, it is sometimes the case that it is necessary to discontinue cultivation during the early fall in order to prevent the trees from attaining a size that would be unsalable. We find that these summer budded trees are very much nicer looking than we can possibly propagate in any other way. They are bright, clean, thrifty, vigorous and in every way more desirable than dormant budded trees can possibly be grown here and give much better results when planted into an orchard.

If budding is done during the late summer, the trees will not of course attain the large size referred to and these little trees can be used for lining out in the manner spoken of by your correspondent. They are desirable for this purpose.

As far as shipping stock from the South to the North is concerned, the trees for the first few months are somewhat at a loss to know how to conduct themselves. In other words, they will remain dormant longer than trees grown North. After they have gotten a start however and adapted themselves to the changed conditions of climate, there is practically no difference in their hardiness or vigor and are fully as desirable as similar varieties grown in the North. Reversing this proposition, that is, bringing trees from the North into the South during the early spring or fall has the opposite effect, that is the trees coming into a warmer climate, start growth sooner than our southern grown trees.

The Southern grown summer budded trees are fully as desirable for Northern orchard planting as Northern grown trees. This of course refers to the same varieties. The variety, and not where it is grown, has everything to do with the desirability of the trees for orchard planting provided of course the trees have been properly grown and are first class stock.

In reply to your correspondent's questions as to the feasibility of procuring grafts already put up from a nurseryman who makes a specialty of this kind of business, would say that this is quite feasible and is often cheaper than one can purchase or grow stocks, purchase scions and do the grafting themselves. There are several firms in the West, particularly, that make a specialty of selling grafts of pears, apples, etc., and at very reasonable prices.

Glen St. Mary, Florida.

LAST CALL FOR THE BADGE BOOK.

Secretary Seager wishes to remind all those who have not yet sent in their names and subscriptions, that the badge book is about to be closed. We note that many of our members are already prepared to give their badge book number. This shows desirable foresightedness, and is a practice which should be copied by other well meaning but more dilatory members. If the badge book has not been attended to, let the person concerned in this write at once to Secretary Seager, Rochester, N. Y.

DO NOT RECOMMEND JUNE BUDS.

BY W. T. HOOD & CO.

We will state that our experience with June buds during the past twenty-five years has been of a limited nature, we will also add that we are not favorable to this class of stock.

June buds twelve to fourteen inches we do not think will do well; the roots, in fact the entire tree being very weak, besides the cost of lining out would be considerable. Peach as a rule being very cheap we would recommend the planting of only first class trees in every instance. June buds two to three feet we think would probably make a good orchard tree if planted in the spring at the North.

We do not believe in planting cheap nursery stock (small grades). June budding being done in mid-summer the severe cutting off that follows has a tendency to weaken the tree unless the season is very favorable. When we carried over June buds and cut back the following year the growth was never as good as the growth of dormant buds.

Our experience with grafted pears has not been satisfactory, nor do we think they will succeed in the North, some of the Alabama nurserymen have however, secured good results grafting pears, they have however as a rule, a warm planting season. We advise planting good seedlings.

Richmond, Virginia.

JUNE BUDS? YES, IF PROPERLY HANDLED.

BY ORLANDO HARRISON.

The matter of June buds has received considerable attention by us for the past seventeen years. As to using June buds for lining out in the nursery row, it can be done, the trees being clipped back very close, leaving only one or two buds, the tree will have more fibrous roots than when planted in the ordinary way, but it is not usually so well shaped.

1st—You must select good soil, something that will produce from fifty to sixty bushels of corn to the acre, plow deep, subsoil, prepare the ground as if preparing for potatoes.

2nd—The change in latitude from the South to Ohio would not affect them whatever. We have frequently grown trees in this way from five to six feet but most of them will be from two to four feet trees. I would not, however, consider this a safe way of growing nursery stock if I had to depend on it from year to year. Trees grown in this way will stand equally as much cold as if planted in the ordinary way.

3rd—You can buy June budded peach trees large enough for orchard planting, growth made in about ninety days, that is to say in the same season, but to have them shipped North in the fall and "heeled in" until Spring would result in failure, June budded peach trees should not be handled in the fall at all if it can be avoided. If they were taken up about December first and taken North and there trenched in, they should be covered both top and roots with soil as in this way they come out fresh in the spring; but if the tops were left out during the winter until about March I would be safe in saying there would be a loss in the Northern latitude.

4th—As to buying pear already grafted, I would advise you to experiment with this a little yourself, as some are successful while others in different soils are not and find it an entire failure. With us we have been quite fortunate in grafting the Keiffer pear, but we have bought grafts several times that were poorly packed that made a heavy loss to us.

Summing it all up, you can buy June budded peach trees and grow them one year and make good yearling trees under good conditions. You can also buy pear grafts and make good trees under good conditions but with a dry season and poor cultivation, look out for failure.

Berlin, Maryland.

Among the Experiment Station Workers.

SOUTH CAROLINA: The experiment station has recently issued a bulletin entitled "A Chemical Study of the Tea Industry in South Carolina." This is much more than its title indicates, because fully one half of the bulletin is given up to a discussion of culture and field management. The experiments in tea culture at Pinehurst, S. C., indicate that the growing of this crop is quite within the range of commercial possibility in that region. The bulletin recommends that level lands thoroughly drained and very prous, free from all acidity be used for the growing of the tea plant.

United States Department of Agriculture, Farmers Bulletin 221. This bulletin is devoted to a popular discussion of the commoner fungous diseases of the cranberry. Cranberry "blast," "scald," "rot," and "anthracnose" are the leading plant parasites infecting this crop.

United States Department of Agriculture. The control of the boll weevil is discussed by W. D. Hunter in Farmers Bulletin, No. 216. Among the recommendations made by the author are early planting, thorough cultivation, thinning of plants, destruction of badly infested fields, and stimulation by the use of fertilizers of slightly infested fields.

COLORADO: Bulletin No. 96 from the Colorado Experiment Station, Fort Collins, is devoted to a discussion of the shade trees of Denver. This takes up the special problems surrounding the growing of shade trees in irrigated sections. The descriptions and measurements, as well as illustrations of the leading and most suitable types of trees for that region are given. This bulletin, while somewhat out of the beaten track, will prove nevertheless very useful.

United States Department of Agriculture, Farmers Bulletin No. 185. A discussion of simple methods of beautifying the home grounds. The planning and planting, accompanied by descriptions of suitable material, for decoration of home grounds, are discussed in this bulletin. The Farmers Bulletins are free to all who apply for them.

ILLINOIS: Bulletin No. 99. This suggestive bulletin contains a discussion of desirable methods of treating the more depleted soil areas of the state, found especially in the glaciated region. This bulletin suggests very pointedly that farm manure, legumes and lime, coupled with a proper preparation of the land will do much more for crop production than artificial nitro-culture.

AN INNOVATION IN AGRICULTURAL SCIENCE.

The incorporation of a society of agricultural experts in New York City recently expresses the trend of the times in agriculture and horticulture. This corporation has for its purpose the giving of expert advice in all matters concerning land development, farm organization, and farm forestry. It includes within its ranks men skilled in agriculture, horticulture, entomology, and sanitary engineering. The president is George T. Powell, formerly president of the Briar cliff School.

Truckers in the region of Savannah, Ga., have been fighting an invasion of caterpillars of the army worm tribe. These voracious insects are not particular as to their menu, and it makes little difference whether it is cabbage or corn, everything goes.

Work on the new state agricultural college buildings at Cornell is now being energetically forwarded. The contract was awarded to an Albany contractor, and the ground broken by the students of the College of Agriculture on May first. The contractor is under bonds to complete the work by July first, 1906.

PROFESSOR HEDRICK OF MICHIGAN TO COME TO GENEVA, N. Y.

The position of horticulturist at the New York Experiment Station Geneva, made vacant by the resignation of S. A. Beach, has been filled by the appointment of Prof. U. P. Hedrick, horticulturist of the Agricultural College and Experiment Station of Michigan. Prof. Hedrick is a graduate of the institution from which he comes, and has had several years experience in experiment station work, and in horticultural teaching. We congratulate the experiment station on the appointment of an active, aggressive worker, as we know Prof. Hedrick to be.

June Offerings

Hanford Nurseries, Oaksdale, Wash., want a good propagator.

A full line of fruit trees is carried by Albaugh Nursery Co., Phoneton, O.

Evergreens and sphagnum moss are offered by Bert Mitchell, Valley Junction, Wis.

D. H. Patty, Geneva, N. Y., is looking for a man to look after the sales end of his business.

Look out for spur grafting machine and Mendenhall smoothing harrow at the convention.

Chas. F. Meyer, 99 Warren street, New York, is agent for Victor Detriche, of Angers, France.

California privet and Berber's thunbergii are specialties of the Oakland Nursery, Manchester, Conn.

Rhododendrons Azaleas and other choice nursery stock is offered by Jaes Smit, Ltd, Naarden, Holland.

Silver maple and Carolina popular have been largely propagated by Mills Dale Nursery, Greenville, S. C.

Hardy Phloxes are specially useful for the home border, Dreer of Philadelphia carries a large selection.

The Tennessee Wholesale Nurseries, Winchester, Tenn., offer four million peach trees for the coming season.

Fruit stocks, including rose and ornamental shrubs are offered by Lenault, Huet & Colombe, Ussy, France.

McNary & Gaines of Xenia, Ohio, are again carrying a heavy stock of the standard varieties of orchard fruits.

One of the firms of the old middle West which carries a large general stock of standards is Albertson & Hobbs, Bridgeport, Ind.

The Andorra Nurseries, Chestnut Hill, Pa., are specializing in the larger types of evergreens, such as white pine and hemlock.

For one year old peach and cherry trees, and two year old apples and nuts, apply to the Easterly Nursery Co., Cleveland, Tenn.

Baby Rambler, one of the hardy summer blooming roses is being extensively propagated by Conard & Jones Co., West Grove, Pa.

Orlando Harrison of J. G. Harrison & Sons, Berlin, Md., will represent the firm at the West Baden convention. He will carry his order book.

Mr. Shadow of the Cedar Hill Nursery and Orchard Co., Winchester, Tenn. notifies his patrons that he will be at the convention and ready to business.

Baltimore Nurseries, Baltimore, Md., offer the fall of 1905 a full line of apple, pear, and the stone fruits. They also carry a large stock of California privet.

The L. G. Green & Son Co., Perry, O., are growing an exceptionally full line of park and street trees, supplemented with a large collection of ornamental shrubs.

A complete assortment of large and small fruits is offered by H. J. Weber & Sons Nursery Co., Nursery, Mo., winners of a grand prize at the Louisiana Purchase Exposition.

Mr. August Rhotert, 26 Barclay St., New York, will be represented at the convention by H. F. Darrow. Mr. Rhotert is American agent for the Louis LeRoy Nurseries, Angers, France.

For those who desire a large and complete stock from which to select the rarer conifers and half hardy ornamentals adapted to the South, the lists of P. J. Berckmans Co. offer attractive possibilities.

McHutchison & Co., represent important French nurserymen, and two of the leading Dutch firms. These are Vincent Le Breton, Angers, France, H. W. VanderBom & Co., Holland, and Schaum & VanTol, Boskoop, Holland. These nurserymen propagate in quantity fruit and ornamental stocks and seedlings. Mr. McHutchison will attend the convention.

A SNAP.

If accepted at once. For good reasons, we will sell a 100 acre Nursery and Fruit and Truck Farm, in Smith County, Texas, close in to Tyler, at a bargain. Well established business, with seventeen agents. Over \$2,000.00 orders on hand; \$2,000.00 residence, new and modern. Write us for particulars, and this very low price.

ROY G. ROBERTSON & Co.,

Tyler, Texas.

Real Estate Agents.

AMONG GEORGIA GROWERS.

DISASTROUS TRUCK AND FRUIT SHIPMENTS.

The demoralized condition of the cold storage service as illustrated by the disasters which overlook berry shippers is causing prospective peach shippers to consider the situation with great care. The peach shipping season will open early in June, and with the approach of the season the size of the crop increases. Growers are hopeful that the moral influence of the experience in shipping berries will have such an effect as to readjust and rectify the faulty car service by the time the peach shipping season opens.

The April freeze is said to have cost the Arkansas fruit region millions of dollars. Peach buds in many portions of the state were destroyed, and in some sections the apple crop was injured. Strawberry berries were also seriously affected.

That there is extraordinary interest in peonies is more than suggested by the fact that a company has been organized near Baltimore for the express purpose of growing peonies to supply the Eastern and Middle Western markets. This will be known as the Glyndon Gardens Company, with a stock of \$20,000. The company expects to sell cut flowers as well as roots.

RAILWAY FACILITIES TO WEST BADEN SPRINGS.

Nurserymen should begin to study ways and means of attending the 30th annual convention of the American Association of Nurserymen, which occurs at West Baden Springs, on the 14th of June next. The New York Central lines and the Monon Route will give a through car service from Rochester, N. Y., to West Baden Springs. The special train will leave Rochester on June 12th at 9:45 p. m., arriving at West Baden 5:55 p. m., June 13th. The fare is 1½ for the round trip from Rochester. Price of Berths from Rochester through to West Baden is \$4.00. State rooms can be secured for \$14.00. The train will go by way of Green Castle, Ind., where it will arrive at 12:44 p. m., on the 13th, leaving at 2:28 p. m. It is very gratifying to know that such excellent provisions for the comfort and convenience of those who attend the convention are available. This should assure a large attendance from points in Central and Western New York.

MISSOURI STATE SOCIETY.

The regular summer meeting of the Missouri State Horticultural Society will be held in the City of Versailles, Morgan County, Missouri, June 13-15, 1905. The program is interesting and covers, in addition to ordinary horticultural topics, a session on school gardens.

FRUIT GROWER'S TRIP

**Special Excursion to the East Texas Fruit Country
June 20th.**

PROMINENT HORTICULTURISTS GOING.

June 20th, the Cotton Belt Route will run a special train excursion of fruit and truck growers to and through the wonderful East Texas fruit and truck country. The round trip from St. Louis will consume about a week. The object will be to study conditions of fruit and truck growing in the East Texas country at the height of the harvest season—when they are picking, crating and shipping peaches, plums, tomatoes, potatoes, etc. The big orchards will be visited and every opportunity given to see results.

Many big growers, officers of State Horticultural Societies, experiment station experts, editors of farm and fruit papers from Northern States will be with us. A cordial invitation has been extended northern growers by the Texas Fruit and Vegetable Growers' Association to visit Texas and attend their State meeting June 23d. Extremely low round-trip rate, special train for the party run on fast schedule—only one night on the road.

The chance of a lifetime to see the great East Texas country to best advantage and at trifling expense.

Write for a copy of fruit booklet, itinerary and cost of trip and full particulars.

**E. W. La BEAUME, G. P. and T. A.,
Cotton Belt Route, St. Louis, Mo.**

Book Review.

"A MANUAL OF THE TREES OF NORTH AMERICA, EXCLUSIVE OF MEXICO," by Chas. Sprague Sargent. With over 600 illustrations by C. E. Faxon. 8 $\frac{3}{4}$ x6 inches. 824 pages. Published by Houghton, Mifflin & Co., Boston and New York. Price, \$6.00.

Most tree lovers are at least acquainted with, if they do not possess a copy of Prof. Sargent's "SILVA OF NORTH AMERICA." This is a monumental work of fourteen volumes, of folio size, containing a description of the trees which grow naturally in North America, exclusive of Mexico. The great expense of bringing out this work places it beyond the purchasing ability of many individuals. It is a pleasure to announce, however, that we now have a condensed "SILVA," at a figure within the reach of all. Prof. Sargent has performed a piece of work which will be greatly appreciated by horticulturists, foresters, and botanists in general in the publication of this volume.

The nomenclature is that of the "SILVA," "An analytical key to the families, based on the arrangements and character of the leaves will lead the reader first to the family to which any tree belongs; a conspectus of the genera embodying the important and easily discovered contrasting characters of each genus and following the description of each family represented by more than one genus will lead him to the genus he is trying to determine; and a smaller conspectus of the species following the description of the genus will finally bring him to the species for which he is looking." An examination of the work shows that many forms are separated upon a geographical basis. For instance, there are several cottonwoods, differing in important characters, but each occupying its own geographic area. There is no special mention of the Carolina popular of the nurseryman, which the botanists are now inclined to look upon as a rather indefinite variation of the cottonwood of the middle West. The author does not repeat the list of synonyms found in the silva which is somewhat to be regretted. "The illustrations which accompany each species and important variety are one half the size of nature, except in the case of a few of the large pine cones, the flowers of some of the magnolias, and the leaves and flower clusters of the palms." We take special pleasure in commending this volume most heartily to those desiring a valuable guide to native North American trees. J. C.

AMERICAN ASSOCIATION OF NURSERYMEN.

AT WEST BADEN, INDIANA.

JUNE, 14TH, 1905.

For the above occasion we have arranged to run a *special Pullman Sleeping Car* through (without change) from Rochester to West Baden Indiana at rate of \$4.00 per berth, and room at \$14.00 via New York Central; Lake Shore and Michigan Southern, Big Four Route and Monon Route.

JUNE 12TH, 1905.

LEAVE ROCHESTER, 9:45 P. M.

ARRIVE WEST BADEN, INDIANA, 5:55 P. M., JUNE 13TH.

For rates, Sleeping Car reservations or any other information, apply to Mr. J. C. Kalbfleisch, D. P. A., N. Y., Central, Rochester, N. Y., or to Mr. Chas. L. Yates, care NATIONAL NURSERYMAN, Room 205 Cox Building, Rochester, N. Y.

DISINFECT TREES BEFORE PLANTING.

A Georgia Entomological Bulletin reports a more or less general practice of dipping peach and plum trees in solutions of lime and sulphur before planting as a protection against San Jose scale. The bulletin reports that as a rule, no injury to the trees results from this treatment but one important exception is stated. In this particular case, 2,000 trees were dipped by an orchardist who is well known for his extreme carefulness. Injury followed and a most careful investigation showed that the regular lime-sulphur-salt wash did in this case injure the trees. The entomologist, in view of this experience hesitates to recommend the practice.

—J. C. Vaughan, of the Vaughan Seed Company of Chicago, and president of the Society of American Florists, has spent several weeks in California among the seed growers. Mr. Vaughan is an uncompromising enemy of the annual free distribution of seeds by the United States government.

A PROFITABLE POTATO SPRAYER.

To any of our readers interested in spraying we would direct their attention to another page of this issue where the advertisement of The H. L. Hurst Manufacturing Co., Canton, Ohio, appears, of their latest and greatest invention, a Combination 4-Row Potato and Orchard Sprayer.

The company, being established more than twelve years, manufactures an exceedingly large line of all kinds of spraying machinery; the firm is also glad and is in position to answer any and all questions regarding spraying machines and spraying, as well as how to realize the greatest profits in potato and fruit culture.

A postal card directed to the manufacturers inquiring about any point in the above matter will bring prompt and valuable information regarding profitable potato raising.

CHERRIES FOR CANNING.

The cherry season in California lasts usually about two months. San Francisco consumes large quantities of cherries, and ordinarily for a period of a week to ten days in the middle of the season is badly glutted. The Tartarian is one of the leading varieties of cherries grown.

The large white cherries are preferred by canneries. Among these are Napoleon, and Rockport Bigarreau.

It is a curious thing that while peaches are picked in a green and comparatively unripe condition, especially when destined for distant shipment, cherries on the other hand are allowed to ripen quite completely, because the skin of the ripe cherry has more elasticity and toughness than the skin of the comparatively green fruit.

CANADIANS ADOPT A STANDARD APPLE BOX.

The Dominion Parliament recently passed a measure recommended by the Minister of Agriculture, the Hon. Sidney Fisher, adopting a uniform sized apple box, this with special reference to the export trade. The box adopted is of the following dimensions: 10x11x22 inches, inside measure, this containing 2200 cubic inches, and holding one bushel or practically the equivalent of one third of a barrel.

The act will not come into force until June, 1906, so that the trade of the present year will not be affected.

Although the bill passed the House without difficulty there were some dissenting voices, and there were advocates of different sizes for special trades. Smaller sizes were recommended by the representatives of fruit growing sections for South Africa, France, and Germany, which countries were said to desire a box of smaller dimensions.

ANNOUNCEMENT

I beg to announce that I have disposed of my interests in the nursery business of Keene & Foulk and Bloodgood nurseries at Flushing, N. Y., and have connected myself with the well-known Morris nurseries, West Chester, Pa., with an office at No. 1 Madison Ave., New York, and am prepared to furnish a choice line of nursery stock at a reasonable price. I desire to thank my former customers for their patronage, and solicit their future orders.

Landscape artist furnished estimates given.

P. A. KEENE,
1 Madison Ave.,
New York.

—Emory Albertson, of Albertson & Hobbs, Bridgeport, Ind., spent a few days with his friends in Rochester and Dansville the last of May.

—It is estimated that the tomato crop of Florida for this season will amount to 2,000,000 crates, of which amount 700,000 is estimated to be the yield of the East coast.

—It is reported that 60,000 nursery trees shipped from the East were burned at Yakima, Washington, the last week in March, because they were found to be affected by either disease or noxious insect.

—Mr. J. Horace McFarland will deliver an illustrated lecture on the awakening of Harrisburg before the Vincennes Civic Improvement League, Vincennes, Ind., Monday Eve, June 12th, stopping there on his way to the Convention, and will join the Western Delegation and spend the day there Tuesday.

KEROSENE AND LIME MIXTURES FOR SAN JOSE SCALE

Each year sees some advance, or at least change, in our methods and materials for suppressing and destroying the scale insects, the most dangerous type of orchard enemies that we have. Recently the Delaware Experiment Station has been experimenting with a mixture of kerosene and lime, and has found that this mixture possesses some advantages over the lime and sulfur. Kerosene and lime seems to combine mechanically, and may be applied with the ordinary spray pump, and according to Prof. Close's trials, compares very favorably with either crude petroleum or lime and sulfur in treating San José scale. Prof. Close suggests that the mixture be called K. L., the initial letters of kerosene and lime. This, then, is a mixture of kerosene, hydrated lime (dry slacked), and water. Anyone can prepare the lime by carefully dry slacking it to an even powdery condition but if he does not care to go to that trouble he can procure from Chas. Warner Co., Wilmington, Del., specially prepared lime, which is sold under the name of limoid.

In making the mixture the kerosene and lime are brought together in proper proportions and mixed in a thin "sloppy mass." One pound of lime will take up about one quart of kerosene, and therefore the proportion is four pounds of lime to one gallon of kerosene. After a thorough stirring of the stock mixture, it is diluted with water and is ready to be applied. Different formulas are recommended. For instance, five gallons of kerosene to twenty pounds of lime, and forty-four gallons of water, is one of the weakest, while twelve and one-half gallons of kerosene to fifty pounds of lime diluted with thirty-four gallons of water is one of the strongest.

Bordeaux mixture may be used to dilute the K. L. mixture instead of water, when a combined insecticide and fungicide is obtained.

Prof. Close says that "although the K. L. mixtures have been used only one season they have caused much favorable discussion in many parts of the country. If properly made and thoroughly applied, there should certainly be satisfactory results." A full account of these mixtures will be found in Bulletin No. 68 issued by the Delaware College Agricultural Station, Newark.

**TIME REDUCED
NINETEEN AND ONE-HALF
TO MEXICO.**

Wabash Line trains make close connections at St. Louis with trains via the Iron Mountain Railway and Laredo Route carrying through Palace Sleeping cars to the City of Mexico. Time is less than three days from St. Louis. Two Trains Daily. You can leave St. Louis at 2:21 P. M. and arrive at City of Mexico 10:45 A. M. the third morning or you can leave St. Louis at 8:20 P. M. and arrive City of Mexico 7:30 P. M. the third evening. Mexico is a delightful and healthful winter resort. Your nearest Ticket Agent will give you full information or write R. F. Kelley, G. A. P. D. or James Gass, N. Y. S. P. A., 287 Main Street, Buffalo, N. Y.

GIFT TO HORTICULTURE.

It is currently reported that one of the largest gifts ever made to any branch of agriculture has been recently provided by the will of the late John Innes of Merton, Surrey, England, who died in August, 1904, and who bequeathed the sum of 325,000 pounds for the purpose of establishing a school of scientific horticulture. It seems probable that the expenditure of this money and the management of the school may be placed in the hands of the directors of the Royal Horticultural Society. If such should prove to be the case, the public would undoubtedly feel satisfied that the enterprise was placed under the care of those well fitted to manage it.

—The amusement street of the Lewis and Clark exposition is called the Trail. In Chicago the sight seer wandered down the Midway, at St. Louis he strolled up the Pike. But in Portland he will "hit the Trail." One of the interesting things in connection with the Lewis and Clark exposition will be an illustration of methods of Klondike mining, which will be found on the Trail.

—Those who are interested in the philosophic phases of the development of plant and animal life should secure a copy of "SCIENCE" for April 7th. This number contains six important papers upon the De Vries mutation theory of organic evolution. These papers were presented as a symposium on this subject held at the time of the meeting of the American Association for the Advancement of Science in Philadelphia, during Christmas week.

VICTOR DETRICHE,**Angers, France.**

**Wholesale Grower and Exporter of Fruit Tree and
Ornamental Stocks, Evergreens, Forest Trees,
Shrubs, Roses, Etc.**

Best quality and grading, low prices.

Before ordering elsewhere get estimate from my sole representative for the United States and Canada.

CHAS. F. MEYER,

99 Warren Street, New York.

WANTED: A PROPOGATOR, THOROUGHLY experienced in practical nursery work in all its branches who wants a permanent position.

Give full particulars and references and state salary wanted, etc.

HANFORD NURSERIES, Oakesdale, Wash.**KLAMATH IRRIGATION PROJECT.**

For full information regarding one of the largest and best of the **GOVERNMENT IRRIGATION PROJECTS** send postal order for 25 cents to W. S. Slough, Principal Public Schools, Klamath Falls, Oregon.

N. B.—THIS WILL NOT APPEAR AGAIN.

EVERGREENS Large Assortment

SPECIALTIES—WHITE PINE, HEMLOCK AND LARGE EVERGREENS. SPRING LIST FOR DETAILS.

Andora NurseriesWm. Warner Harper, Prop.
Chestnut Hill, Pa.**BERT MITCHELL,****VALLEY JUNCTION, WIS.**

—DEALER IN—

SPLAGNUM MOSS

AND ALSO

Evergreen Trees, Spruce, Tamrack and White Birch**AT LOW PRICES.**

My Moss is absolutely dry, baled in burlap and in wire bales at low prices. Don't be fooled by other dealers. Ask for prices before placing your order elsewhere.

LENAULT, HUET & COLOMBE,**NURSERYMEN,****USSY, CALVADOS, FRANCE.****Growers and Exporters
Of French Nursery Stock**

A great assortment of fruit trees such as Mahaleb, Mazzard, Myrobalan, Pear, Apple, Quince, Manetti, Rose, Multiflora, Forest Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

H. J. Weber & Sons Nursery Co.

Nursery, Mo.

Have to offer for Fall of 1905 a complete line of

Fruit and Ornamental Trees, Shrubs, Roses, Etc.

Fine stock of Apple 2 and 3 year, Peach 1 year, Cherry 2 year, Pear 2 year, Plum 1 and 2 year (Blue Damson a specialty), Apricot 1 and 2 year, Japan Walnut, Gooseberry, Current, Grape, Blackberry (root cuttings), Raspberry, Rhubarb, etc.

Large stock and long list of varieties of Ornamental Shade Trees, Ornamental Shrubs, Vines, etc.

"Grand Prize" awarded our display at the Louisiana Purchase Exposition.

Represented at the convention by Mr. F. A. Weber, Badge 42, and Mr. W. A. Weber, Badge 42.

XENIA STAR NURSERIES

XENIA, OHIO.

HEAVY GROWERS OF THE FOLLOWING
LINES OF SUPERIOR STOCK ESPECIALLY
FOR THE WHOLESALE TRADE . . .

APPLE Choice trees. Sixty Varieties. Good supply Opalescent.

PEAR Standard, High Top and Dwarf, including Choice Keiffer.

CHERRY Finest blocks in the United States. The superior quality of our Cherry is well known.

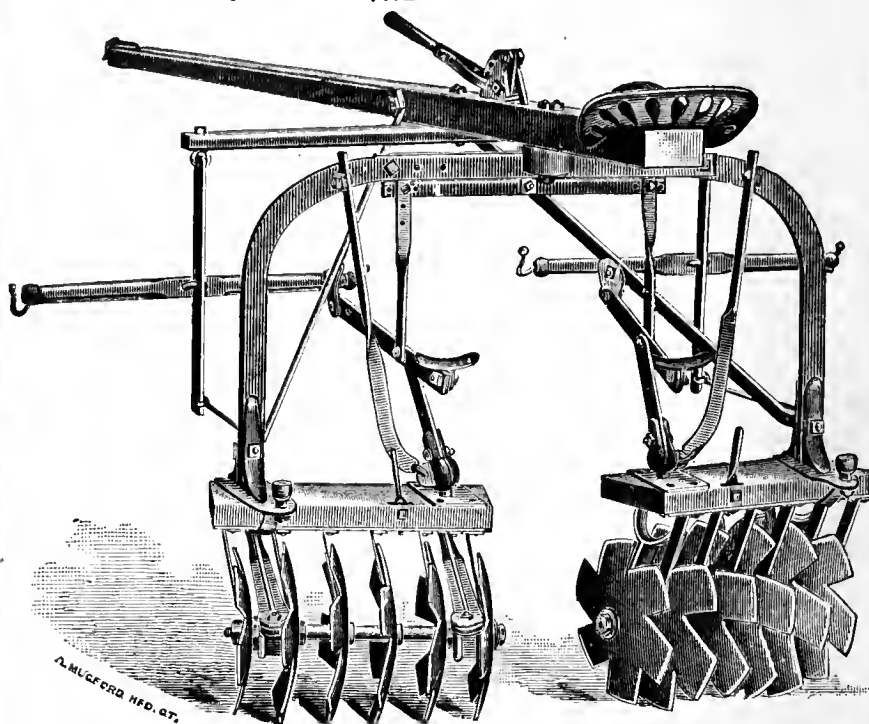
PLUM General assortment of native and Japan kinds on Plum and on Peach. Limited supply of European sorts.

PEACH General assortment. Strong on Elberta and Champion.

THE ABOVE LINES ARE OUR SPECIALTIES. IN THEM WE EXCELL. THEY ARE SURPASSED BY NONE AND EQUALLED BY FEW. YOU ARE INVITED TO VERIFY THESE CLAIMS BY A PERSONAL INSPECTION OF OUR BLOCKS. WE HAVE OUR USUAL SUPPLY OF SMALL FRUITS, ORNAMENTAL SHRUBS, &c. SUBMIT YOUR WANT LIST (ACTUAL OR ESTIMATED) FOR PRICES.

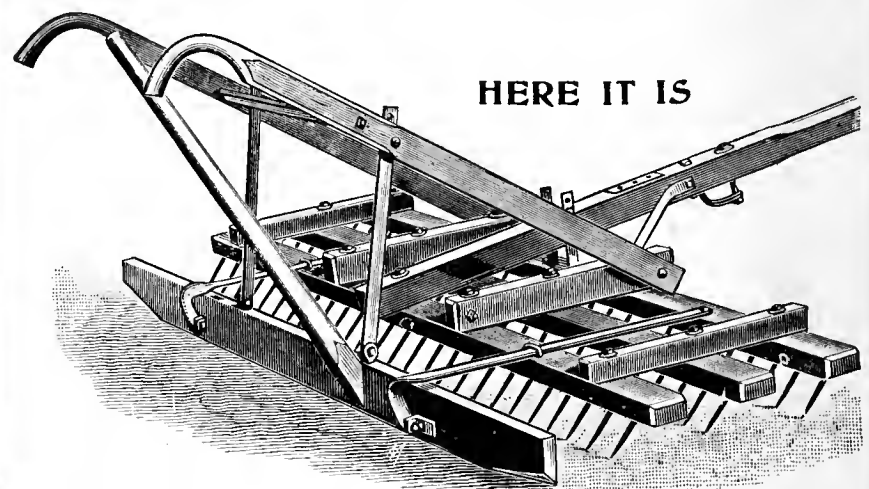
McNARY & GAINES,
XENIA, OHIO.

For Nurserymen ^{WE HAVE IT IN THE} Four "C" Cultivator



Entirely new principles in cultivating nursery stock, corn or cotton—Clark's Cutaway Cultivator. It has two gangs, each having five Cutaway discs. This cut was made from first machine, when we used six spading discs. We now use only five of our regular Cutaway discs.

SMOOTHING AND LEVELING HARROW



Two-Horse 8 Foot Smoothing Harrow

With this tool every field can be made as smooth as a floor and the soil pulverized fine enough for a flower bed.

The Speer Grafting Machine

Will be on exhibition at Baden Springs during the convention.



Is the Machine that will do the work perfect and saves its cost in short order.

The advantage claimed is **GOOD WORK**: better than can be done by hand, as the bevel cut is perfect and makes a close fit. The cut is made across the grain of the wood which makes countless small grooves across the cut, thus the graft will cling together and stand rough handling without giving way.

For circulars and prices, write the General Agent

E. G. MENDENHALL, Box 316, Kinmundy, Illinois.

Established 1780.

Andre LeRoy Nurseries

Brault & Son, Directors,

Angers, France

ARE NOW BOOKING ORDERS FOR

FALL, 1905, AND SPRING, 1906

For nursery stocks, of their own growing, grading and packing. For quotations apply to

ANDRE L. CAUSSE, Sole Agent,
105-107 Hudson St., New York City.



DETROIT AND BUFFALO STEAMBOAT CO.

Steamers Eastern States and Western States
The DIRECT and POPULAR
ROUTE to POINTS WEST
DAILY SERVICE, MAY 10th
Improved Express Service (14 hours) Between
BUFFALO and DETROIT

Lv. Buffalo Daily, 5.30 P. M. Ar. Detroit, 7.30 A. M.
Connecting with Early Morning Trains for Points North
and West and D. & C. Line for Mackinac Island.
Lv. Detroit Daily, 5.00 P. M. Ar. Buffalo, 9.00 A. M.
Connecting with All Morning Trains for Points East.
Rate between Buffalo and Detroit \$3.50 one way.
\$6.50 round trip. Berths \$1.00, \$1.50; Staterooms
\$2.50 each direction.

Send 2c Stamp for Illustrated Pamphlet.
Through Tickets sold to all Points via Lake and Rail.

RAIL TICKETS HONORED ON STEAMERS
All Classes of Tickets sold reading via Grand Trunk,
Michigan Central and Wabash Railways, between Buf-
falo and Detroit, will be accepted for transportation on
D. & B. Strs. in either direction between Buffalo and
Detroit. A. A. SCHANTZ, G.S. & P.T.M., Detroit, Mich.

FOR SALE

AT A BIG BARGAIN

A Live, Growing Nursery Business

Situated in the Central West. DOING A RETAIL
CATALOGUE BUSINESS.

Nursery is in the suburbs of a prosperous grow-
ing city of 5,000 inhabitants and grounds are located
one mile from post office.

Packing house of brick with a 9-foot cellar, one
block from the post office.

Packing house 2 blocks from 3 Trunk Line
depots.

Will sell the established name of the business.

Will sell our mailing list of 30,000 correspond-
ence and patrons.

Profits in cash, Spring 1905, over \$10,000.00.

Will sell or rent the land where stock is growing.

Will sell or rent the packing house.

Object of selling—failing health of the proprietor
and must change climate.

ADDRESS G

Care NATIONAL NURSERYMAN,
ROCHESTER, N. Y.

When writing to Advertisers mention the National Nurseryman.

A BARGAIN IN EUROPEAN AND JAPAN PLUM TREES

Fine assortment and best grading.
An exceptionally fine block of 25,000 2-year olds, smooth and hand-
some; also about 5,000 1-year old. Low Prices for early orders.

Address: **H. C. CLARK, - Dansville, N. Y.**

A BARGAIN IN STANDARD PEARS.

Extra size, 6 to 7 ft; 1
inch and up 5 to 6 ft; 3-4 and up. Mostly Bartlett.

Can also furnish a few of the leading varieties.

It will be worth while to get our prices before buying else-
where. Address

Pioneer Nurseries Company,
Salt Lake City, Utah.



Good Fruit Versus Bad

is the subject at issue and no
wide awake farmer will doubt
which is more desirable.

The Spramotor

absolutely insures you 80% of an
increase in the crop from your
orchards. The Spramotor pays for itself many
times over which is better than costing you
nothing. Don't confuse it with Spray Pumps.
Write for Booklet (A). Full particulars free.

SPRAMOTOR CO.

Buffalo, N.Y. London, Canada.
AGENTS WANTED.

The Oakland Nurseries

OFFER FOR FALL AND SPRING SHIPMENT

The finest lot of two and three year old Apple trees grown

A good assortment of Peach and Plum

California Privet—all sizes

Plenty of shrubbery, including Berberry Thunbergii at a
special price in large lots

G. R. BURR, Prop.

MANCHESTER, CONN.

Carolina Poplars Silver Leaf Maples

BEST STOCK THAT CAN BE GROWN.

WRITE FOR SIZES AND PRICES.

MILLS DALE NURSERY,

GREENVILLE, S. C.

Salesman Wanted:

To solicit orders for fine nursery stock. Gardeners and
others who have some knowledge of nursery stock. Several
men wanted at once. Steady employment and good pay.

ADDRESS

P. A. KEENE, No. 1 Madison Ave., New York.

When writing to Advertisers mention the National Nurseryman.



MEMBERS OF AMERICAN ASSOCIATION OF NURSERYMEN IN CONVENTION AT WEST BADEN SPRINGS HOTEL, WEST BADEN, IND.,
JUNE 14, 15 AND 16TH, 1905

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., JULY, 1905.

No. 7.

THE ANNUAL MEETING

Story of the Convention—An Unqualified Success—Much Credit Due the Executive, Indiana Members and Program Committee.

The thirtieth annual meeting of the American Association of Nurserymen has passed into history leaving behind it memories of success and pleasure with all those who attended or took an active part in the sessions.

THE PLACE.

There are no kicks to be registered. The place is most interesting. Situated among the hills of Southern Indiana in a region filled with features of natural interest, it was new and refreshing in its rural simplicity to members from cities and towns.

The hotel is worth visiting itself. It is one of the most unique hostelrys and structures in the country. Remote from the town, it has the comforts of the city with the pleasures of the country. The architectural features of the building are striking and unusual. But more desirable from the convention standpoint than all else, the appointments and service were excellent. The wants of the large number of guests were quietly and promptly satisfied by an efficient corps of attendants and the office management under the guidance of Mr. Kennedy was most satisfactory.

It was most grateful on the adjournment of a warm afternoon session to take a dip in the commodious swimming tank or a stroll along the shady walks, sampling the various brands of spring water for which the place is famous.

THE ATTENDANCE.

The attendance was the largest in the history of the association and the sessions were characterized by a "swing and go" that was altogether delightful. The time limit for papers and discussions was adhered to in the main and proved in the hands of the president an effective means of keeping the discussion from wandering to matters not germane to the subject under consideration.

President Kirkpatrick demonstrated his ability to wield the gavel with dignity and good judgment and in every way proved a happy and tactful presiding officer.

THE OPENING SESSION.

Promptly at ten o'clock on the 14th President Kirkpatrick called for order and introduced Hon. Jesse Overstreet, congressman from Indiana, who welcomed the convention

on behalf of the State in pointed and forceful language; incidentally he showed a praiseworthy knowledge of the natural resources of the State. He was followed by Mr. A. J. Rhodes on behalf of West Baden whose address was full of reminiscences and sentiment.

PRESIDENT'S ADDRESS.

This was a strong plea for the upbuilding of the American Home as the important unit of American society. He developed most impressively the thought of the responsibility of each American nurseryman in contributing to the aesthetics of the home and thus contributing to the culture of the people of the land, the whole having an important bearing upon the quality of American citizenship. We publish the address elsewhere.

SECRETARY'S REPORT.

As Mr. Seager said "the figures did their own talking." While the membership and receipts had gradually and steadily increased for the last seven or eight years yet his membership mark of 1,000 which he had striven to reach had not been attained and until this goal had been reached he would not be satisfied.

TREASURER'S REPORT.

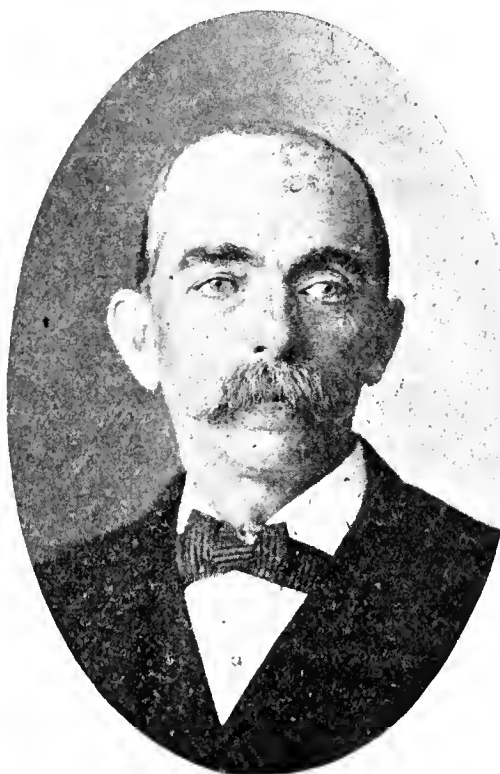
This showed the finances of the association to be in a healthy condition. The increasing business and cooperative needs of the association increased the necessity of more funds and after considerable discussion it was decided to raise the annual fee from \$2.00 to \$3.00.

REPORTS OF COMMITTEES.

As usual the report of the Transportation committee was of transcending importance. Mr. Albertson showed his usual conscientious and thoroughgoing qualities in the character of the report presented. The report is printed elsewhere in this issue. In the discussion of the report, active part was taken by Messrs. Albaugh of Ohio, Hale of Tennessee, and Kerr of Texas.

NEW POWERS OF TRANSPORTATION COMMITTEE.

The upshot of the discussion was that the committee on Transportation was given carte blanche so far as travelling expenses were concerned and in addition were authorized to employ a special freight agent when necessary to act in the interests of the American Association of Nurserymen for the



EMERY ALBERTSON

Bridgeport, Ind.

President American Association of Nurserymen

purpose of correcting abuses and securing relief from unjust freight rates.

Mr. Aubrey Frink of Glen St. Mary, Fla., gave an interesting account of how Florida nurserymen had by united, intelligent and persistent action secured important concessions from the railroad authorities of that State. Mr. Albertson suggested that a classification schedule for the various sections covering car lots, boxes and bales be printed in the annual report for the benefit of the members of the association.

Finally all members were urged to second to the utmost unselfishly and unreservedly the efforts of the Transportation committee. All members felt that progress was being made and that the outlook was more cheering than in the past although there was much yet to be desired. Mr. Albertson will undoubtedly give important assistance to the new committee on Transportation.

LEGISLATION—IMPORTANT ACTION.

The work of the committee on legislation may be said to have reached another important stage. After the presentation of the report a lively discussion ensued out of which a resolution emanated and was presented by Chairman Watrous of Iowa, authorizing the new committee to investigate the feasibility and constitutionality of a federal law affecting the interstate shipments of necessary stock; and in the event of finding that the law is constitutionally possible they are to bend their efforts toward the drafting of such a law as shall meet the requirements of the nursery states of the Union. The next effort will be toward the enactment of such a law. This of course involves a large contract but the committee will attack the problem courageously.

PARCELS-POST AND EXPRESS.

The United States postal laws as regards the parcels service were handled without gloves and a committee consisting of Watrous of Iowa, Kelsey of Massachusetts, and Hale of Tennessee, was appointed to confer with a similar committee of the American Seed Trade Association and the Society of American Florists, at their coming meetings for the purpose of formulating united demands to be presented to Congress upon this important subject.

THE AUDITING COMMITTEE.

Mr. McFarland, of Harrisburg, Pa., on behalf of this committee recommended the cutting out of the report all advertisements and all lengthy and unprofitable discussions.

He recommended further that the report be condensed as much as possible by abstracting unduly lengthy papers. These recommendations were adopted. We shall then have a smaller report but it will be not padded and the expense of printing will be reduced.

A PLEASING INCIDENT.

The souvenir booklet published by the NATIONAL NURSERYMAN received special commendation by President Kirkpatrick in his address and was the means of calling attention to the fact that the only charter member of the first meeting of the Society present at the 30th annual convention was Mr. J. J. Harrison of Painesville, Ohio. Mr. Harrison was called out by the chair and acknowledged in a few well chosen words the kindly recognition of the Society.

VETERAN MEMBERS PRESENT.

In addition to Mr. Harrison we should note the presence of Arthur Bryant of Princeton, Ill., who was present at the

meeting of the Northern Illinois Horticultural Society where the proposal to organize an association of American Nurserymen was first made. Mr. N. H. Albaugh, of Phoneton, Ohio, enjoys the distinction of having attended twenty-four consecutive meetings. J. Van Lindley, of North Carolina, and W. F. Heikes, of Alabama, each have a record which runs back to early days—and there are many others.

DALLAS FOR ME!—THE NEXT MEETING PLACE.

One of the most exciting incidents of the convention was that in connection with the choosing of a place for the next annual meeting. Atlantic City, Chicago and Indianapolis were candidates. Dallas had been spoken of but not seriously considered. Quietly there arose a tall, lean figure with the black hair, sallow complexion and aquiline features of the native born Texan. This youthful looking individual began to speak in those smooth flowing sentences peculiar to the South. There was magnetism in the fluidity of the speech and there was method in the manner of presenting the claims of Texas fundamentally and Dallas particularly, as a place for the next meeting of the American Association of Nurserymen. Interest grew into enthusiasm as the glowing sentences descriptive of the natural and artificial advantages of the lone star State fell from the orator's lips. One need but glance over the face of the audience to be convinced that the contest was won before the speech was concluded.

When the vote was taken Dallas won and the credit of the victory belongs to Mr. Stanley H. Watson. His speech was the talk of the corridors and Mr. Watson the recipient of much well earned congratulation.

ENTERTAINMENT AND EXCURSIONS.

The comfort and pleasure of the members were exceedingly well cared for by the Program committee and our Indiana hosts. Everything that forethought and opportunity could devise was taken advantage of to make the meeting pleasant and successful.

RECEPTION AT FRENCH LICK HOTEL.

The reception of Tuesday evening tendered by Mr. Taggart, proprietor of the French Lick Hotel, was greatly enjoyed by a large number of the members after they had time to remove the dust and stain of travel. Those who accepted Mr. Taggart's hospitality carried away pleasant memories of excellent music, dainty flowers, delicious refreshments and a fine ball room.

LADIES AFTERNOON.

The attendance of ladies at this convention while very good would have been much larger had a fuller realization of the social opportunities afforded by the place been more general.

A small beginning was made by way of recognizing the ladies who attended the convention. This was in the nature of an informal gathering in one of the parlors for purely social purposes called by the Indiana delegates on Thursday afternoon. The little "at home" did much towards extending acquaintances and greatly added to the pleasure of the ladies of the party.

THE BANQUET.

Those who attended this important function on Friday night—and not far from one hundred and fifty sat down—agree that the table display was one of the handsomest they

had ever seen. There was a wealth of floral decorations. Peonies and roses formed the mass. The former were almost wholly furnished by the Jewell Nursery Company of Lake City, Minn., though smaller contributions were received from many of the nurserymen of Indiana and adjoining States. The guests sat down promptly at 7:15 and the clinking of



GEORGE E. SEAGER
Secretary
Rochester, N. Y.

silver and tinkle of glass continued till 8:45 when President Kirkpatrick arose and in eloquent sentences characterized the convention, the mission of the nurserymen and then introduced the President-elect Emery Albertson, of Bridgeport, who responded in concise and business like but appreciative manner to the words of congratulation. The conduct of the meeting was then placed in the hands of Captain C. L. Watrous, of Iowa, who successively called upon the following for toasts: Hon. Willet M. Hays, "The Nation's Nursery;" John C. Chase, of New

Hampshire, "The White Pine Label;" John Craig, of New York, "The Nurseryman's Press;" Stanley H. Watson, of Texas, "The Lone Star State;" N. H. Hale, Tennessee, "Our Association and the South." The whole affair proved to be an unqualified success and will undoubtedly become an established item in the program of the annual meeting. The members showed full appreciation of the donations of the various brands of juices as shown in the accompanying menu:

MENU.

Black Spanish Wine, by W. B. Wright

Canape d'Anchoise

Stuffed Olives

Seedling Wine, by Harmann Grape Nurseries

Chicken Bouillon in Cups

Mixed Pickles Silverskin Onions

Filet of Whitefish, Vin Blanc

Sliced Cucumbers Potatoes Monaco

Cider, by Cooly & Dougherty

Sweetbreads, Pique, Perigorde

Fresh Mushrooms

Grape Juice, by Gleason Grape Juice Co.

Roman Punch

Tenderloin of Beef, Braise, Trianon

Potatoes Risssoles Cauliflower, au Gratin

Michigan Claret, by E. Enterman

Lettuce and Tomatoes, Mayonnaise

Red Raspberry Ice Cream Assorted Cake

American Cheese Water Crackers

Coffee

Champagne Cider, by Bryant

Fruits and Berries by A. A. of N.

Flowers and Decorations by A. A. of N.

SIDE EXCURSIONS.

MAMMOTH CAVE.

It was a jolly party of somewhat less than fifty headed by President-elect Albertson that left the hotel on Saturday morning for Mammoth Cave, Kentucky. The route was via Louisville where a halt was made for lunch and where the

party was met by J. H. Milliken, District Passenger Agent, of the Louisville and Nashville railway, who arranged a special rate for the remainder of the trip and who then placed Mr. L. C. Barry of the advertising department of the L. & N. in special charge of the comforts of the excursionists. The NATIONAL NURSERYMAN was the only journal represented and it takes much pleasure in testifying to the assiduity and thoughtfulness with which these railway officials attended to the wants of the travelers.

The ride on the L. & N. over the Kentucky hills and through winding valleys revealed magnificent scenery and unique pastoral conditions. The traveler leaves the L. & N. at Glasgow Junction and completes the remaining eight miles between him and his destination by taking a steam motor line which with much tooting and puffing lands him at Mammoth Cave Hotel in time and fully ready for supper. The Hotel is an ancient whitewashed wooden structure unique and primitive in most respects.

The first trip through the Cave was made at night occupying from eight to twelve on Saturday night. The temperature of the Cave is 54 winter and summer and after the torrid heat of out doors the underground temperature was deliciously invigorating—a cool air bath in fact.

The next day the party divided into groups going in different direction, exploring as fancy dictated various places and routes.

This vast region of cavernous limestone is full of features of surpassing interest and all members of the party feel deeply grateful to Mr. Albertson for having suggested the excursion.

THE VINCENNES VISIT.

That the invitation of Messrs. Simpson and Reed of Vincennes was much appreciated is attested by the fact that fifty or sixty nurserymen placed themselves in the hands of their hosts on Tuesday morning and were not only entertained but greatly instructed by a tour through the historic town of Vincennes and a visit to its leading features of interest.

Later on the party examined the well kept grounds of Reed and the Simpsons and were much impressed by the fine blocks of stone fruits and other nursery stock.

Vincennes is fast making a reputation for fine cherry trees.

REPORT OF EXHIBITS.

Committee on Exhibits: R. C. Berekmans, J. C. Hale, and M. B. Fox.

Your committee beg to offer the following report on Exhibits displayed at this meeting.

ROCHESTER LITHOGRAPHING CO., ROCHESTER, N. Y.

Display of Colored Plates, Plate Books, Circulars, Etc.

BENJAMIN CHASE, DERRY, N. H.

Wooden Tree Labels.

DAYTON FRUIT TREE LABEL CO., DAYTON, OHIO.

Wooden Tree Labels.

JEWELL NURSERY CO., LAKE CITY, MINN.

Display of Peonies.



CHARLES L. YATES
Treasurer
Rochester, N. Y.

E. G. COX, ROCKWOOD, OHIO.

Ensee Apples, showing Crops of 1904 and 1905 side by side.

THOMAS MEEHAN & SONS CO., INC., DRESHERTOWN, PA.

Raffia.

J. G. HARRISON & SONS, BERLIN, MD.

Second Year Whole Root Apple and Keiffer Pear Graft.

D. HILL, DUNDEE, ILLS.

Seedling Evergreens.

PETERSON NURSERYMAN CO., CHICAGO, ILLS.

Paeonies.

PAW PAW VALLEY NURSERY CO., COLOMA, MICH.

Assorted Flowers.

W. C. REED, VINCENNES, IND.

Roses and Sweet William.

BAKER BROS., FORT WORTH, TEXAS.

Rosedale Hybrid.

H. M. STRINGFELLOW, LAMPASAS, TEXAS.

Shiro Plums.

J. HORACE MCFARLAND, HARRISBURG, PA.

Photographs, Catalogues, etc.

C. F. McNAIR, DANSVILLE, N. Y.

Trenching Implements.

ALBAUGH GEORGIA FRUIT CO., FT. VALLEY, GA.

Greensboro Peach.

P. J. BERCKMANS CO., AUGUSTA, GA.

Red Nagate Plums, Biota Aurea Nana, Athea Meehanii.

HALE GEORGIA NURSERY CO., FORT VALLEY, GA.

Greensboro Peaches.

NATIONAL ORANGE CO., CALIFORNIA.

Oranges.

VAUGHAN SEED STORE, CHICAGO, ILLS.

Baby Rambler.

L. F. DINTLEMAN, BELLEVILLE, ILLS.

Tree Baler.

WALLACE MACHINE CO., CHAMPAIGN, ILLS.

Power Sprayer. Inoculated Cow Pea.

E. M. BUECHLEY, GREENVILLE, OHIO.

Strawberries.

E. G. MENDENHALL, KIMMUNDY, ILLS.

Speer Grafting machine.

T. V. MUNSON, DENNISON, TEXAS.

Model Tree-Wire Grape Trellis.

GRIFFITH & TURNER CO., BALTIMORE, MD.

Sample Kill-O-Seale.

OMNIA CHEMICAL CO., NEW YORK CITY.

Sample Kil-lol Bug Killer.

PUBLICATIONS.

National Nurseryman, Gardeners Chronicle of America, Our Horticultural Visitor, The Fruit Grower, The Apple Specialist, American Fruits, Country Calendar, American Florist.

THOSE WHO ATTENDED.

The register in the office of Secretary Seager at the convention showed the following names:

E. W. Kirkpatrick; R. T. Oleott; A. C. Mayhew; Orlando Harrison; E. S. Welch; Herbert S. Chase; Henry B. Chase; George Aehelis; Charles Ernest; Edward W. Knox; A. M. Stringfellow; E. W. Chattin; Joseph Davis; C. M. Redman; H. T. Ilgenfritz; A. W. McGill; M. Gaines; J. H. Clark; J. W. Shadow; James McHutelinson; Fred D. Green; D. S. Lake; E. S. Welch; T. J. O'Hara; Dick Taylor; Charles M. Peters; William H. Moon; C. F. McNair; Bay State Nursery, (A. E. Robinson); Peter Youngers; R. J. Bagley; C. W. McNair; M. Butterfield; W. T. Good; George A. Marshall; C. H. Peck; P. J. Cogswell; J. Horace McFarland; J. C. Hale; B. F. Southern; Robert C. Chase; Robert T. Stoehr; E. Albertson; J. S. Kern; J. A. Lopeman; Allen L. Wood; G. W. Weatherby; C. M. Peters; H. J. Steinhoff; J. S. Wilson; J. W. Gaines; Z. E. Wheelock; J. H. Wallace; J. J. Harrison; Robert George; Ralph S. Lake; Abner Hoops; W. F. Heikes; Henry M. Dunlap; O. P. Beckley; Horace Hooker; F. B. Thacker & Sons; J. A. Humphries; A. J. Brown; Hiram T. Jones; H. F. Hillenmeyer; W. J.

Maloney; Giles County Nursery Co.; J. F. Donaldson; A. C. Marshall; P. A. Pincoffs; C. O. Fowler; Bruce & Howell; D. F. Wickman; E. R. Taylor; Irving Rouse; F. E. Freeman; J. Wragg & Sons Co.; A. C. Greisa; Blair & Kaufman; G. C. Perkins; T. E. Greisa; August Rhotert, (J. H. Darrow); R. Underwood; E. C. Peirson; D. H. Henry; G. W. Grant; O. G. Chase; F. L. Dintelman; W. E. Galeener & Son; Andre L. Causse & Son; George W. Sallee; F. A. Weber; C. C. Caywood; L. J. Bridge; W. P. Stark; Max J. Crow; E. H. Graves; W. Rolker; Prof. John Craig; R. B. Griffith; George S. Josselyn; W. F. Bollender; B. E. Fields; J. H. Skinner; Frank B. White; Mrs. Z. K. Jewett; D. T. McCarthy & Sons; S. Dougherty; O. W. Neil; F. C. Hall; W. H. Johnson; G. S. Pickett; D. S. George; J. W. Hill; William S. Greisa; Will B. Munson; G. W. Williams; A. W. Bogue; Henry Kallan; H. A. Harding; T. W. Watson; A. H. Kereheval; George C. Chandler; F. W. Meneray; James Truitt; W. L. Hart; J. W. Schuette; John M. Bridget; W. S. Bennett; M. G. Campbell; Eugene W. Stark; A. Bennett; Herman Berkhan; E. T. Dickinson; F. E. Schifferli; W. C. Reed; James E. Rolker; W. S. Killian & Son; H. L. Bird; Henry Kohankie; A. L. Ball; B. E. Gage; C. L. Yates; J. M. Vandervoort & Son; H. D. Simpson; Horatio R. Reed; George Winter; Samuel Lorton; G. H. Whitney; I. J. Baldwin; R. C. Berckmans; Central Michigan Nurseries; R. C. Young; F. N. Downer; James MeVitty; F. B. Barrett; George W. Scruggs & Son; John Sibenthaler; J. Van Lindley; T. J. Dinsmore; James J. Britt; E. L. Barnes; L. G. Bragg; George B. Galbraith; N. W. Hale; H. A. Morgan; E. G. Cox; Klehems Nurseries; E. R. Gustin; M. B. Fox; D. Hill; Theodore J. Smith; William Saddler; C. H. Webster; S. M. Meehan; Davis County Nurseries; Irvin Jaquay; W. C. Barry; Otto Katzenstein; W. V. West; J. W. Richmond; Robert A. Simpson; Arthur Bryant & Son; G. W. Sheldon & Co.; P. Ouwerkerk; Charles Cannon; N. J. Wragg; R. M. Sperry; C. J. Brown; W. Y. C. Grant; Smith Brothers; W. W. Joiner; N. H. Albaugh; W. A. England; C. W. Hoffman; John Fraser; Ira D. Crow; James J. Barnes; M. Barnes; I. Spaulding; Baker Brothers; J. C. Miller; W. A. Easterly; E. G. Mendenhall; E. A. Henby; F. G. Withoft; C. L. Watrous; W. A. Harrison and wife; W. N. Scarff; John C. Chase; Thomas B. Meehan; Harlan P. Kelsey and wife; R. I. Smith; C. W. Malloy; Thomas Jones; J. Jenkins.

TREASURER'S REPORT.

Your Treasurer submits his annual report from June 15th 1904, to June 10th, 1905.

RECEIPTS.

1901		
June 15th	To balance cash on hand.....	\$2,842 09
" 23rd	George C. Seager.....	50 00
July 1st	Interest.....	29 53
Dec. 31st	George C. Seager.....	250 00
" "	Interest.....	28 81
1905		
April 1st	George C. Seager.....	250 00
June 5th	George C. Seager.....	1,151 27

\$4,601 70

DISBURSEMENTS.

1904		
June 23rd	Convention room two days, Piedmont Hotel Atlanta.....	\$ 36 00
" "	Express.....	1 00
" "	H. Shaw use of lantern and operator, Atlanta	9 00
" "	G. H. Powell, expense.....	5 00
July 6th	George C. Seager, salary.....	500 00
" "	C. L. Yates, salary and postage.....	50 20
" "	Union & Advertiser Co., Printing Badge Book	290 71
" "	Whitehead, Hoag & Co., Badges.....	27 6
" 16th	E. Albertson, expense Chicago, postage, etc....	25 15
" 29th	McGuire & Wood, Attorneys.....	253 49
Aug. 11th	Miss E. Jacobson, reporting convention, etc....	85 30
" "	J. H. McFarland, lantern slides.....	26 30
" "	E. Albertson attending committee meeting at Manitou, Colo.....	83 95
" "	Youngers & Co., attending W. Class. committee	38 75
Sept. 6th	McGuire & Wood defending suit W. Va.....	24 00

Oct 30th	E. Albertson, expense Niagara Falls, printing, postage, etc.....	\$ 46 55
Nov. 21st	Union & Advertiser Co., printing Proceedings...	301 00
Dec. 1st	500 two-cent stamps for Secretary.....	10 00
" 8th	Scrantom & Wetmore Co., book for Secretary..	1 00
1905		
Jan. 5th	John P. Smith Printing Co., envelopes for Sec. .	2 00
" 14th	M. E. Wolf Bond for Treasurer.....	18 75
Feb. 1st	Central Passenger Association.....	17 00
Mar. 4th	W. W. Morrison, Printing for Secretary.....	51 15
" 21st	E. Albertson, expense Transportation Com.....	111 00
May 11th	George C. Seager, postage.....	10 00
	Balance on hand.....	2,570 71

\$1,601 70

All of which is carefully submitted.

C. L. YATES,
Treasurer.

IMPORTANT PAPERS

SOIL INOCULATION.

Dr. Moore's address on the subject proved to be thoroughly enjoyable. It was delivered in an easy non-technical cultured manner and cleared up hazy notions about the work of bacteria in the soil.

The roots of the members of the pea and bean tribe are infested by bacteria which cause the development of warty growths. These are the homes of the bacteria whose office it is to collect nitrogen from the air permeating the upper layers of the soil. This nitrogen is distributed throughout the plant. It may, and usually does greatly increase the growth of the plant. When the plant decays, the nitrogen thus abstracted from the air, is retained by the soil and becomes available plant food.

Vegetable pathologists have now separated these germs from the parent plant, cultivate them separately and inoculate seed before planting. Sometimes these germs are in the soil, in which case other soil can be inoculated by sprinkling over it a small quantity of the germ infested soil. Beneficial results are not always secured because the germs will not grow in very acid soils or in soils in poor physical condition.

THE ROOT-GALL MATTER.

The gist of Mr. Hedgecock's remarks may be summed up as follows:

There are several kinds of root gall. The kind he has studied for the past three years with much assiduity is the hard woody gall of the apple. He has made many experiments in trying to ascertain whether or not this form is contagious. All inoculations have failed to prove that it is contagious. One experiment in which badly galled trees were planted in orchard appears to show that this form of root gall is non-injurious to growth. The trees infested with the hard type of root knot are doing just as well as others of the same age not so infested when planted.

THE GRAPE.

T. V. Munson, Denison, Texas, read by W. B. Munson.

Exhibited a trellis of his own construction and explained

his method of priming and training. This method is known as the long arm horizontal system and has many points to commend it in economizing labor and material.

EXPERIMENTAL ORCHARDS FOR NURSERYMEN—L. C. Corbett, EXPERIMENTAL ORCHARDS.

L. C. Corbett, Washington, gave an interesting description of the United States experimental farm at Arlington, Washington. This is to be a test orchard for varieties—a place where a collection of authentic varieties can always be found and where they will be available for comparison.

ADDRESS OF PRESIDENT KIRKPATRICK.

Ladies, Gentlemen, Members of the American Association of National Nurserymen:—This our Thirtieth Annual Meeting brings assurance of well earned prosperity among our members and increased usefulness of our association.

We are fortunate in selecting this delightful seat, this famous place of beauty, health and convenience where we have such favorable conditions for expediting business, making and renewing fraternal friendship, and dispensing generosity and good will to all mankind.

POWER OF ORGANIZED EFFORT.

Success attends organized work only in the presence of harmony, loyalty and intelligent persistency. The increasing success of this association bespeaks the wisdom and good faith of its members. The work of your committee has been most thorough and efficient. To them we owe all honor and esteem.

The comparative importance of our work in the great industrial army is the pride of every earnest propagator of fruits and flowers, of every builder of parks and boulevards and of all who beautify public grounds and sacred private homes.

The immense quantity of most delightful food products drawn from the soil, as the result of the Nurserymen's skill, should inspire us to go on to greater accomplishment.

These extensive and constantly increasing cargoes of beautiful and enchanting wealth going out to brighten and strengthen lives in all parts of the earth and bringing in return a harvest of wealth to every worker, will attract to us the highest type of men and thus enable us to keep apace with the best of civilization.

INCREASE OUR MEMBERSHIP.

More effective measures should be used to induce all nurserymen to join with us, sharing the joyful work and rich rewards from our association.

We greatly need the aid and council of those renowned horticulturists of the Pacific Coast. The presence of Mr. Burbank and others. Their aid and council would be of incalculable value. They might inspire some of our members to an effort to win even as great renown as has Mr. Burbank, who is rightfully esteemed the most valuable of all California riches.



ORLANDO HARRISON
Berlin, Md.
Vice-President American Ass'n of Nurserymen



THEODORE J. SMITH
Geneva, N. Y.
Of Executive Committee



THOMAS B. MEEHAN
Dreshertown, Pa.
Chairman Executive Committee



J. H. DAYTON
Painesville, O.
Of Executive Committee

BETTER VARIETIES AND METHODS OF PROPAGATING THEM.

We need and must have better varieties of all kinds of trees and plants—varieties with improved qualities and, in increased supply to meet an increasing demand.

We need and must have better methods in propagating, growing and handling our wares and thereby winning better prices for our product; better reward for our effort. President Roosevelt was right when he said all workers should have "fair prices and a square deal."

SUPPORT THE COMMITTEES.

The welfare of our association demands strong and generous support of all our committees. Also of our efficient Secretary who should with increased salary be chairman of our Program committee.

Our committees have done an immense amount of onerous and efficient work for this society. Much of this work has been done at heavy sacrifice of personal interests and yet it has been a cheerful voluntary work. Our warmest friendship and highest appreciation should and will be extended to these loyal servants.

Our committees on Transportation and on Legislation should be requested to cooperate with our kindred organizations in securing more rational postal laws; such as extended domestic and foreign parcel post, abatement of the stamp nuisance, and other needed reforms. Close and sympathetic relation and cooperation should be maintained with all schools, departments and periodicals bearing upon investigations in common with our purposes.

We are fortunate in having a government in most efficient cooperation with all industrial enterprises. Our committee on exhibits should have most liberal encouragement in securing samples of the many valuable fruits introduced each year and in placing them on exhibit each year in our halls. We should appreciate our favorable conditions for unlimited horticultural development, by improving the quality and by increasing the demand for our product.

NATIONAL NURSERYMAN BOOKLET PRAISED.

[President Kirkpatrick then drew special attention to the fact that in completing the thirtieth annual meeting we were

rounding out important epoch in the life of the association. He, here took occasion to draw attention to the important historical record presented to the members of the association in the attractive booklet received by each member at this meeting. This booklet, by the NATIONAL NURSERYMAN PUBLISHING Co., presents the only complete record of the officers and places of meeting of the association ever published and as the early copies of the association's reports are difficult to obtain the record is most valuable.]

Ours is a rising sun-hopeful star of ascendancy, just beginning to draw men away from war and greed and lead them up to universal peace and to generous prosperity. Teaching him to feast upon the fruits of the garden and regale his senses with the beauties of motion, form and color, the symphonies of music and harmonies of fraternal love.

The degree of success attending this session depends upon the concord among our members, the spirit of toleration and the amenities towards each other and upon the aid and sympathy you extend to your presiding officer, who is sensible of his unworthiness to assume such distinguished honor and such grave responsibilities as you, unsolicited, have imposed upon him.

REPORT OF COMMITTEE ON TRANSPORTATION.

IMPORTANT WORK OF THE YEAR.

We regret that our report consists more of an account of efforts made than of actual results secured; yet, we hope that the work done in the past year, if followed up, will in the near future secure modifications and changes in classifications that will be of great benefit to the nursery trade.

Under your instructions of last year your committee, consisting of A. L. Brooke, Peter Youngers, P. A. Dix and the writer, went before the Western Freight Classification Committee at their meeting at Manitou, Colorado, July the 8th. We succeeded in retaining the flat minimum of 20,000 pounds on all car loads of trees, in place of the change to 20,000 pounds on 36 feet cars with their scale, as they had proposed.

While there we tried to interest them in some other changes, but found they had a regular trial docket made up, and that unless applications had been made thirty days previous to

their meeting and appeared on their docket, no consideration would be given. We also found we were at a great disadvantage in not having known how to proceed, and having no statistics showing the volume of the nursery business, &c.

On return home from this meeting, a list of questions relating to freights received, forwarded, losses, &c., was made up and about 700 of these were sent out to the leading nurserymen of the United States, with circular letter explaining same and asking conservative estimates in answers.

After much delay and scores of personal letters, we finally succeeded in getting answers to about 110 of the 700. Many were the excuses for not answering,—“fear of giving away office secrets,” and “not time to answer,” &c., &c.

These 110 answers included most of the heaviest shippers though not all. On compiling these answers, we found they represented a business the previous year of over 64,000,000 pounds, or over 3,200 20,000 pound cars of freight.

Freight paid by nurserymen, over \$230,000.00.

Average weight first class trees, loaded in bulk in 36 feet cars, about 14,000 pounds. In 40 feet cars, 18,000 pounds. In 50 feet cars, 23,000 pounds.

Boxes of proper sizes for filling cars load to classification minimum.

September 6th, H. S. Chase with the writer went before the Southern Freight Classification Committee, at their meeting at Niagara Falls, to argue our petition for lower minimum on small cars 36 feet and under, but are sorry to report that our petition was not granted at that meeting, and since that we have not had time to take it up with them again.

January 8th, owing to change in date other members not being able to attend, the writer was again before the Western Freight Classification Committee at their meeting at Gulfport, Miss., to argue our applications for changes in minimum weight on car loads, trees in bales, peach seed in car loads, and excelsior packing material.

They gave us fifth class on peach seed car loads 24,000 pounds. Also trees in bales at actual weight in consignments of not less than 100 pounds first class; but in printing their classification a mistake was made and the change applied to “bales, tops wrapped, roots boxed,” instead of “bales roots wrapped,” bales roots wrapped having been made $1\frac{1}{2}$ times first class, bales not weighing less than 100 pounds each. But we have the assurance of the secretary that this was not intentional and will be corrected to “bales roots wrapped, consignments of 100 pounds or over first class.”

The minimum on car loads and class on excelsior was not changed however, we believe that if this is followed up and your committee is helped by the members generally taking the matter up with the representatives of their lines, there can be secured a minimum of 16,000 pounds on 36 feet cars, 20,000 pounds on cars 36 to 45 feet, and 24,000 pounds on cars over 45 feet, without a change in class. But to secure this we must all work together.

Realizing their lack of knowledge as to methods of packing, and in fact of the nursery business in general, the secretary of the Western Classification Committee came to our grounds this spring to investigate and, we think, learned some things that will be of advantage to your committee in future work.

The writer has also made three trips to Chicago and one to St. Louis, to talk these matters over with the chairman and members of committee.

January 1st, 1904, the Official Freight Classification Committee changed classification on seedlings from trees to plants, and as there was no rate on plants in car loads lots, shippers had to pay first class rates on seedlings in official territory, but through the efforts of G. W. Sheldon & Co., Irving Rouse and other importers, they saw their mistake and July 1st changed it, rating seedlings as trees.

January 1st, 1903, the classification on trees in boxes, in the official report was changed from third class to second class making an advance of over 20 per cent. in freights. While this proposition was before the committee for months before the change was made, it seems the nurserymen were not aware of it and nothing was done to prevent it, and for nearly two years, we all took our medicine and said nothing. It would have been much easier to have prevented the change than it is to get them to restore the old rate.

This matter was taken up last September, and at a meeting of the Western New York Nurserymen's Association later a very strong committee was appointed, consisting of Irving Rouse, W. C. Barry, Wm. Pitkin, C. J. Brown and O. G. Chase. This committee was, by your worthy president, added to your Transportation Committee and at once took up their work, going to the members of the Official Freight Committee who were heads of the leading trunk lines, especially the New York Central, Delaware, Lackawanna & Western, and Lehigh Valley and Erie, and after two or three trips by Mr. Rouse and one trip by the whole committee to New York, together with voluminous correspondence, succeeded in securing their support and a special call signed by the General Freight Agents of said roads for special vote on our petition. Previous to the vote being taken other members of the Official Committee were visited personally by one or more nurserymen, patrons of lines they represented, and their support sought.

We understand that this vote by the Official Committee was in favor of granting our petition to restore to us third class on trees in boxes, but it seems there is a power behind this committee and that when it was submitted to the Railroad in the Official Territory they did not ratify it (a very unusual action), and that either the work done would be lost, or result desired be delayed. Yet having secured the support of the majority of the Official Committee, it certainly would be policy to follow it up and, if possible, find where the trouble is, and by personal work with the representatives of the roads who have been unfavorable, secure their support. This change would result in the saving of thousands of dollars annually to the nurserymen of the country. With this change we would have little to criticize in the Official Classification, though there are some small changes which might be made to mutual advantage.

In the Southern Classification we have little to ask, except lower minimum on Car Load, but thought best to let this rest for the present while pushing the work before the other committees.

With the Western Classification Committee we are filing petitions for lower minimum on trees car load and peach stones; for lower class on excelsior packing and peach stones,

also peach stones less car load. Their next meeting when these petitions will be considered, will be in July, and our Association should be well represented there and our petitions supported as strongly as possible and backed up by samples.

We have also suggested several changes in their classification, eliminating some items and changing others to simplify and make it more easily understood and avoid danger of mistakes. These changes the secretary approved and seemed very glad to have had attention called to same.

We would suggest the preparation of a table of the correct classifications in the different districts, the same to be printed in the reports of the Association so that members might know for themselves what was correct and be able to detect overcharges in freights, etc., before paying them, thus saving loss and the necessity of filing claims.

We find that freight agents often misconstrue the classification and sometimes do not understand them. As an example we give the following experience: In November 1904, we handled three cars in western territory. When we came to pay the freight bill, we found all had been billed at 30,000 lbs. (the actual weight less than 18,000 lbs. each), making an overcharge of 10,000 lbs. on each car, or \$88.50 on the three cars. We declined to pay the over-charge, paying only on 20,000. The General Freight Agent of the road came back demanding full payment, claiming 30,000 lbs. to be the correct minimum. We referred him to the Western Classification and the demand was not repeated.

Again in the spring of 1905, two cars were charged up the same, 30,000 lbs., which was in excess of actual weight. This was referred to the Division Freight Agent for correction, but he claimed 30,000 to be the correct minimum, and even after referring him to the classification he did not understand it, and we had to refer the matter to General Freight Agent and the Classification Committee, and this is still unsettled.

To overcome above, we have suggested changes which will simplify and make classification more easily understood.

In closing our report we would recommend that the Association employ a Traffic man, at a reasonable salary, to give his time to this work, keep in touch with these committees, keep posted as to changes they have in prospect so as to be ready to take necessary steps to overcome same where they would be against us and work for such changes as could be reasonably asked in the interests of our business, keep up a regular statistical table each year and such other information as would be of advantage to us, and keep members fully informed on all matters relating to freights, &c.

There is entirely too much of this for any member or committee of the association to handle properly without neglecting personal business, and in almost all other lines of business where the interests are as large as ours, you will find a good traffic man is kept constantly employed, one familiar with railroad business and methods of work.

We should, if possible, have a representative at each meeting of the Classification Committees, to keep fully acquainted with their work, as well as with the members, and be ready to act whenever anything comes up interesting or affecting our business.

Your committee feels that it has done what it could in the

past year, has given its full share of time and work in this matter, though has not accomplished all it had hoped for, and now asks relief and that a new committee be appointed and the work turned over to them. We will gladly give them any help that we can, and urge that each member do his part in helping and not be as backward and hard to interest as many have been in the past year, as much more can be accomplished by united personal work than otherwise.

We would also advise that shippers should be more conservative in filing their claims against the railroads, filing claims only where serious losses caused by incompetency or grave neglect have occurred, and then only for actual loss at wholesale prices. The fact that so many and exorbitant claims have been and are being filed is largely the cause for unfavorable changes in the classifications, and is one of the hardest points to overcome in trying to secure concessions.

You know how it is when some customer comes in with a big claim that you know to be unreasonable, and you feel that you are being held up. In future dealings with such parties you are not inclined to make many concessions.

It is the same with the railroads; the officials are working for the companies employing them and are working for their interests. Yet as a class there are no nicer men or more reasonable than railroad officials. And when shown that there are inequalities in their classifications which are a burden, curtailing business, and that what shippers want is to harmonize these and by certain changes increase their business, working to the mutual advantage of both,—we will have less trouble in having our petitions favorably acted upon.

A number of the largest eastern shippers have stated to writer that all of the claims they ever collected have not amounted to 10 per cent. of additional freight they have had to pay under the increase on boxes from third to second class, and that to secure the return to third class they would be large gainers were they to waive all claims. Yet there is little doubt that the filing of so many claims was the cause of the change.

E. ALBERTSON,
Chairman.

CORRESPONDENCE

INTERESTING LETTER FROM EDGAR SANDERS, ONE OF THE ORGANIZERS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

EDITOR NATIONAL NURSERYMAN.

Kindly accept my thanks for the timely historic brochure in the way of a souvenir to the members of the A. A. N. this year. Much of the data is very interesting and required, I know, some research to gather together the old familiar faces, to bring back many interesting memories. I am proud of my acquaintance with many of them.

A noble set of men. The A. A. N. has reason to be proud of the dignity of its meetings.

Yours truly,

Chicago, June 17, '05.

EDGAR SANDERS.

H. F. Darrow, representing Aug. Rhotert, 26 Barclay St., New York sole American agent for Louis Leroy's Nurseries, Angers, France, H. M. Hardyzer, Boskoop, (Holland), John Palmer & Sons, Ltd., Annan, (Scotland), P. J. Looymans & Sons, Oudenbosch, (Holland), called on the nurserymen in Rochester last month.

STATE VICE-PRESIDENTS A. A. N.

Alabama, W. F. Heikes, Arkansas, George W. Scruggs; Colorado, George J. Spear; California, Charles Howard; Connecticut, C. R. Burr; Delaware, D. S. Collins; Georgia, R. C. Berckmans; Illinois, Irving E. Spaulding; Iowa, Samuel Lorton; Indiana, W. C. Reed; Kansas, F. W. Watson; Kentucky, E. B. Hillenmeier; Indian Territory, W. R. Collins; Maryland, Joseph Davis; Massachusetts, Harlan P. Kelsey; Michigan, C. A. Ilgenfritz; Minnesota, R. Underwood; Missouri, Justin James Butterfield; Nebraska, A. J. Brown; New Hampshire, John C. Chase; New Jersey, Hiram T. Jones; New York, D. H. Henry; North Carolina, J. Van Lindley; Ohio, W. N. Searf; Oregon, M. McDonald; Oklahoma, J. A. Lopeman, Pennsylvania, J. Horace McFarland; Tennessee, W. Y. C. Grant; Texas, E. W. Knox; Utah, P. A. Dix, Salt Lake; West Virginia, B. D. Southern; Virginia, W. T. Hood; Wisconsin, Mrs. Z. K. Jewett; South Dakota, George H. Whiting.

PERSONAL MENTION.

—J. G. Harrison and Sons exhibited Peach, Apple and Kieffer Pear trees at the Convention.

—W. W. Hunt, Hartford, Connecticut, called on nurserymen in Rochester and vicinity last month.

—Herman Berkhan, agent for Levavasseur & Sons, called on his many friends in the nursery business last month.

—C. R. Burr, Manchester, Connecticut, called on Western New York nurserymen on his return from the convention.

—E. S. Welch, Shenandoah, Iowa, called on the nurserymen at Dansville, Geneva, Rochester and Newark the last days of June.

—George C. Chandler, representing the Eastern Nurseries at Jamaica Plains, Massachusetts, stopped off at Rochester to visit the nurserymen on his return from the convention.

—James McHutchison of McHutchison & Co., Importing Agents, New York City, sails for Europe on July 6th. Mrs. McHutchison will accompany him. He will make an extended trip through England, France, Germany, Belgium and Holland, visiting the several firms for whom they are agents in this country. He expects to return early in September.

—The many friends of Henry W. Van der Bom, Oudenbosch, Holland, will welcome his return to this country. He arrived about the 15th of June, unfortunately too late to attend the convention at West Baden. Mr. Van der Bom spent several months in this country last summer visiting the trade and made a great many friends. Henry's laugh is contagious.

—The Pennsylvania Railroad have taken the entire nursery grounds of Samuel C. Moon, Morrisville, Pa., and will build there an immense freight transfer yard. The nursery was originally started many years ago by Mahlon Moon, father of Samuel C. and contains many fine specimens of Rivers Purple Beech, Cut Leaved Beech, Weeping Beech and other rare evergreen and deciduous trees. It is probably that Mr. Moon will have to establish his nurseries in entirely new quarters.

NATIONAL NURSERYMAN:

GENTLEMEN:—Your very beautiful little booklet received. We thank you very much for this favor. We certainly appreciate such information as we find in this book. The beginnings of any valuable organization are always especially interesting to those who have an interest in the work of the association. It is a pleasure to read over the sayings of these strong, worthy men. I hope the usefulness of the Nurserymen's Association will continue to increase as time goes on.

Ottawa, Kansas.

A. WILLIS.

DEAR SIR:—Will you please state in the NURSERYMAN that we have gone out of business. This is to save nurserymen postage and printed matter.

H. J. & O. BRABHAM,

Bamberg, S. C.

Proprietors Bamberg Nurseries.

CORRECT ENGLISH—HOW TO USE IT. Interesting, Instructive. A monthly magazine devoted to the use of English. Josephine Turck Baker, editor. \$1.00 a year. Send 10 cents for sample copy, CORRECT ENGLISH, Evanstown, Ill.

WEST BADEN BY WABASH RAILWAY.

Those who journeyed to West Baden by way of the Wabash Railway, and the editor of the NATIONAL NURSERYMAN was one, found the route attractive, the cars comfortable, and the road bed easy. The writer is under special obligations to the genial Passenger agent, Mr. R. F. Kelly, of Buffalo for courtesies which added greatly to the pleasure of the trip.

Those who travelled via Wabash had an opportunity also of visiting Purdue University and the State Experiment Experiment Station at Lafayette, both objects worthy of examination and study.

HEADING NURSERY STOCK.

IN FAVOR OF LOW HEADS.

You have put up an interesting and very important subject in NATIONAL NURSERYMAN when you discuss the formation of heads on fruit trees in the nursery. I am fully convinced that it is a great mistake to head trees as high as the fashion now requires in the nursery. Many of the best growers in the country have come to that conclusion, but when they buy a two year old apple or pear as is commonly sent out, they find it almost impossible to secure a low headed tree in the orchard. The heads are already formed at a height of two and a half to four feet from the ground and all the side buds have started into branches which have been pruned off. It is practically impossible to rehead such trees forming tops at a lower stage.

I have had two pieces of experience lately which have impressed this very strongly on my mind. Two years ago this spring I bought a few hundred Japanese plums to be used as fillers in an orchard already set. I ordered one-year-old trees, but the nurseryman for some season sent two-year-old trees. These were fine well-grown stock such as can easily be made from standard varieties of Japanese plums. They had big bushy heads formed three or four feet from the ground. This was precisely what we did not want our fillers to be and accordingly the trees had to be headed back. At the same time a small number of one-year-old trees of our own growing were used in the same planting. Today the trees which were one-year old at planting are far in advance of those which were two year old. The latter have made straggly, awkward heads. Not five per cent. of them have proved satisfactory.

In the second case we were dealing with dwarf apple which we desired to grow in bush form. By the way we consider this the only satisfactory form for growing apple on Paradise, unless one goes into the various styles of cordons, espaliers, etc., which are not much used in this country. We ordered a number of two-year-old dwarf apple from one of the best nurseries in the country and received really very fine trees. These dwarf apple were headed back in the ordinary fashion with trunks nearly two feet long, a positive absurdity with this class of goods. Of course the nurserymen feels that he has to do this to please many of his customers, but it is a great disadvantage to other customers; and my conviction that high heading is wrong generally, and with dwarf trees always wrong, makes it seem to me a practice which should be discontinued.

In fact I think that in many cases it is better to buy one year old trees for the simple reason that one can then form the heads in any manner and in any height he pleases.

Massachusetts Agricultural College.

F. A. WAUGH.

LEWIS AND CLARK, CENTENNIAL EXPOSITION, PORTLAND OREGON.

From May 22nd to September 30th the Wabash System will sell round trip tickets to Portland, Ore., Seattle, Tacoma, Bellingham and Everett, Washington, Victoria and Vancouver, B. C., at low rate of \$69.50. Tickets good to return ninety days from date of sale. Choice of direct lines in either direction or diverse route at no extra expense. On May 22nd, 23rd, 24th, 25th, 29th, 30th and 31st. Rates to Portland via Los Angeles or San Francisco or to Los Angeles or San Francisco via Portland, \$80.50, good for ninety days. The Wabash System the Popular Line for Pacific Coast Tours. For full information write,

JAMES GASS,
N. Y. S. P. A.

R. F. KELLEY,
G. A. P. D.

287 Main Street, Buffalo, N. Y.

The National Nurseryman

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The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

Official Journal of American Association of Nurserymen.

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ROCHESTER, N. Y., JULY, 1905.

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Programme—Harlan P. Kelsey, Boston; Herbert S. Chase, Huntsville, Ala.; John S. Kerr, Sherman, Tex.

Publicity—Ralph T. Oleott, Rochester, N. Y.; Orlando Harrison, Berlin, Md.; J. Horace McFarland, Harrisburg, Pa.

Exhibits—R. C. Berckmans, Augusta, Ga.; J. C. Hale, Winchester, Tenn.; M. B. Fox, Rochester, N. Y.

To edit report—J. Horace McFarland, C. L. Watrous, George C. Seager.

STATE AND DISTRICT ASSOCIATIONS.

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NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y.; Meets annually in June.

AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y.; Meets annually in January.

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PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

We take this means of acknowledging the many kind expressions which the issuance of our modest convention souvenir has called forth. The little pamphlet was only intended

OUR SOUVENIR BOOKLET

to mark the passage of the thirtieth milestone in the life history of this important association and to connect with such passing the names of some of the men who have helped make its history. While the facts were hastily gathered and the records of individual credits are necessarily incomplete, yet we are glad to feel that the effort made in collecting the data has met with the warm approval of the supporters of THE NATIONAL NURSERYMAN. While we are forced to keep an eye on the practical, technical and business issues let us not entirely overlook the historical and sentimental.

In the meantime it is the pleasure and purpose of THE NATIONAL NURSERYMAN to serve in the best possible manner the nursery interests of the United States and Canada.

This respected, venerable, yet vigorous organization, will hold its 29th biennial session in Kansas City, August 8-10 1905. The meeting will be held in that city in direct response

AMERICAN POMOLOGICAL SOCIETY MEETING.

to the urgent solicitations of the various Mississippi Valley state horticultural societies. The Missouri State Horticultural Society has taken the initiative in presenting the invitation, and will stand sponsor for a good attendance, and for providing facilities for a meeting place and a hall for the exhibition of fruit.

The American Pomological Society has always been closely affiliated through its membership with the American Association of Nurserymen. A number of the same men have served in the executive chair of both societies, and have furthered the purposes of the respective organizations by willing and unselfish sacrifice of much time and labor. The names of Berckmans, Barry, Campbell, and Watrous have always been associated with the general progress of both of these efficient organizations. Every effort is being made by the Mississippi Valley Fruit Growers' Associations to bring about a meeting which will have in every way full and unqualified success. A meeting in Kansas City, one of the gateway cities of the transcontinental lines should halt all travellers to the Pacific Coast and should draw heavily upon the fruit growers of the middle West. An attractive and instructive program is being prepared. Let nurserymen keep this convention in mind, and make a point of dropping in during the August meeting.

Excursions to the fruit regions of Arkansas and Missouri are being arranged. Full information may be had from the chairman of the local committee, Mr. L. A. Goodman, Kansas City, or the secretary, John Craig, Ithaca, N. Y.

It is safe to say that all who attended the West Baden meeting came away with a feeling that it was good to have been there. The program committee was active and efficient.

The presiding officer courteous and firm; the papers pointed and timely; the place comfortable and convenient. All went well and when changes of program became imperative, the change was made without confusion and everything moved forward like a well oiled mechanism.

THE CONVENTION.

We feel specially indebted to our Indiana friends for generous hospitality and many thoughtful attentions. The weather might have been cooler and we were told usually is, but it was not quite up to the Georgia mark of last year. Our Hoosier friends have certainly set the pace. We have assurance that the Texans will be found in line next year. "Dallas for me" is now the cry.

A number of the leading monthly periodicals have been exploiting the doings of some of the leaders in plant breeding work. Naturally Luther Burbank of California has received

the larger share of attention. His work has been described and re-described. **PLANT BREED-
ING FURORE.** It is fair to say without minimising the

great value of Burbank's work that many of the articles that have appeared convey to the uninitiated unduly magnified and wrong impressions regarding the difficulties and purposes of plant breeding. Many of them seek to shroud the whole work in a veil of mystery, whereas so far as the operation is concerned there is nothing more difficult about the combining of the sexes of plants than of combining two varieties by the well known asexual method of grafting or budding. Burbank has made notable advances, because he is possessed with the spirit of persistence, because he has been favored with a genial climate, and because he has worked in a wholesale way. But it is fair to say that there are other workers in the country, who have not been heard from, and who are working quietly and modestly, whose labors will give to the public creations as valuable as any that have appeared as a result of the efforts of Mr. Burbank. The plums of the Mississippi Valley have been vastly improved by the efforts of H. A. Terry of Iowa, of Theo. Williams of Nebraska, and others. The grapes of the East have been mellowed and increased in number and usefulness by Jacob Moore and interested individuals. And just now there is an exceedingly interesting piece of work going on under the direction of the Canadian experimental farms, which is succeeding beyond expectation. This is the developing of a race of apples capable of withstanding the rigors of the climate of the Canadian Northwest. By combining the small berried-crab of Siberia with the hardest types of the cultivated apples, new forms have been produced which bid fair to give the settlers in that great wheat growing section apples as well as flour. This note is not offered with any desire to detract from the magnificent work of Burbank, but for the purpose of bringing to public notice the fact that many men are working in this field, and that credits should be distributed, not centralized.

Nurserymen and fruit growers are wont to believe that the economic flora of the world has been completely explored, and that all the plants of value have found their way into the propagating houses of florists and nurserymen. It is true that the great era of plant exploitation occurred in the days of Bartram, Marshall, Fortune,

Humboldt, and others, but it is not true that the mine of plant wealth has been exhausted. The work of the Division of Seed and Plant Introduction of the Department of Agriculture at Washington, is disproving this every day. It is not altogether a question of introducing new and rare things,

but of finding the exact adaptations of plants. This particular line of work presents a practically unlimited field.

The recent explorations in Thibet by Mr. E. H. Wilson, collector for the well known house of James Veitch & Sons, of Chelsea, London, England, have resulted in the introduction of a number of valuable additions to our lists of ornamentals. Mr. Wilson was remarkably well equipped by training and inclination for an enterprise of this kind, and with indefatigable energy and unflagging persistence, he penetrated the most difficult fastnesses of the Thibetan wilderness, exploring valleys and mountain ranges with as much thoroughness as circumstances would permit. The results of his explorations are beginning to be apparent, and Messrs. Veitch & Sons are now offering to the public such things as new forms of rhododendrons, new and desirable members of the lily family, and valuable additions to our lists of hardy plants. Among these is a yellow flowering poppy, *Meconopsis integrifolia*. Said to be an important acquisition.

We are fortunate in this country in having a national explorer, and being provided with a division of our federal Department of Agriculture, established for the purpose of gathering together from the ends of the earth those things having promise of usefulness to the American plantsman. At the head of this department is Mr. David G. Fairchild, a man who by nature and training is splendidly qualified to further our investigations. Mr. Fairchild is of the opinion that the mountains of Western China, the Thibetan region, and the vast stretches of Manchuria, are destined to yield fruits and economic plants of great value to various parts of the United States. Arrangements are making for the establishment of a trained explorer in China, whose duty it will be to search and forward all promising variations of useful and ornamental plants. These will be quarantined in a properly equipped station in this country till all fear of disease or dangerous insect being introduced by them is removed. The plants will then be propagated and placed in the region where they are expected to be best adapted. One of the principal difficulties Mr. Fairchild is encountering in prosecuting this work is the difficulty of securing suitable men. He is now canvassing the country for the purpose of finding a man who has the exact qualifications for work of this nature. No one who has given any thoughts to the benefits of this work can do otherwise than wish the department the fullest success in prosecuting this valuable enterprise.

At the last meeting of the Society of American Florists, Mr. E. G. Hill read a very suggestive paper under this title. His conviction was that the Northern part of the United States was as yet unsupplied with a rose which was hardy and bloomed satisfactorily during the latter part of summer. Wherever the Tea Rose succeeds then the problem of bloom in the latter months is practically solved. Mr. Hill says:

**THE
DEVELOPMENT OF
AN AMERICAN
TYPE OF ROSE.**

"That we need a new type of rose for the section north of Virginia and Tennessee, calls for no argument whatever. One of the first requirements of the type is a vigor of constitution that will withstand the ravages of black-spot, or fungus which is the first cause of a failure in our efforts to

grow roses successfully in the northern section of our country. A few varieties succeed, but only a very few thrive and bloom as they should; there are a limited number of favored localities where roses will do well in the north, but they are few and very far between."

Mr. Hill recommends that Rosa Rogusa should be used as one side of the cross and possibly some of the native American species for the other. He thinks that by combining a Rosa Rogusa with a remontant type there is strong hope of obtaining not only a healthy but a late blooming variety.

DENVER AND RETURN \$38.00.

Official train, Seventh International Epworth League Convention, Denver, July 5th to 9th, 1905, under the supervision of Genesee Conference Epworth League Transportation Committee, D. L. Tuttle, Chairman, Rev. P. A. Crow, Secretary, John H. Brogan.

Special train will leave Buffalo 5:30 p. m. on July 3rd, via Wabash System running solid to Denver. Special low rates made for this party for side trips from Denver. Train will be composed of Tourist sleepers, Standard sleepers and Dining cars. The route for the Niagara Frontier Epworth League Special has been selected by the Transportation Committee, and all members and their friends should join this party, as complete arrangements have been made for the lowest possible railroad rates and hotel accommodations at Denver. Write for itinerary giving full information.

JAMES GASS,

N. Y. S. P. A.

Wabash Railroad, 287 Main Street, Buffalo, N. Y.

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DETROIT, MICH.

HON. N. H. ALBAUGH



N. H. ALBAUGH

Phoneton, O.

An old and active member.

Mr. Albaugh, president of the Albaugh Nursery and Orchard Company, of Phoneton, Ohio, was born in Ohio in 1834, and has the unique distinction of having attended all the meetings of the Nurserymen's Association, except one, during the past twenty-seven years. He has been President of the Association, and on various occasions has presided over the meetings in the absence of the executive. Mr. Albaugh has been actively engaged in the nursery business for forty-seven years, and at one place.

GLEN ST. MARY NURSERIES, Glen St. Mary, Fla. We hand you herewith check for \$1.00 as subscription for another year to THE NATIONAL NURSERYMAN. We would not like to miss any number of this valuable paper.

EXCURSION OF HORTICULTURAL EDITORS AND EXPERIMENTERS TO TEXAS.

Reference was made in the last issue of this journal to the excursion to East Texas, conducted by the Cotton Belt Railway people. This excursion left St. Louis on the evening of June 20, and returned on the 26th, although sub-excursions were afterwards arranged which attracted a number of the visitors to other parts of the state and prevented them from returning at the appointed time.

Texas at this time arouses new interest in the minds of nurserymen for the reason that Dallas has been selected as the next meeting place of the American Association. The editor of THE NATIONAL NURSERYMAN was glad to note the presence of W. C. Reed and H. N. Simpson of Vincennes, Indiana. These men made a pretty thorough investigation of Eastern Texas, going as far south as Galveston. Ex-president Kirkpatrick also joined the party and added greatly to the pleasure of the visitors. The regular itinerary included visits to Tyler, Athens, Waco and Morrill, the latter the headquarters of the Morrill Orchard Co. At Tyler the visitors attended and took part in the meeting of the Texas Fruit and Truck Growers' Association.

IMPRESSIONS.

The first thing the visitor is impressed with is the fact that it is a country of magnificent distances. One hears much of the size of Texas, but figures fail to carry the immensity of the area. Although we only stepped over the border yet the distance from Texarkana, on the border of Arkansas to Tyler, is about 130 miles. Tyler is the center of a trucking region. The soil varies from light sandy loam to reddish, gritty clay loam. The lighter and higher stretches are preferred for tomatoes, cantaloupes and water melons. Of fruits, peaches and plums are leaders and succeed well. Mamie Ross peach was being shipped at the time of our visit. Although the latter part of the season had been excessively wet we did not observe an undue amount of fruit rot. Japanese plums are not as successful as varieties derived by crossing the Japs with the native Chickasaw strains. Gonzales is an example of this sort. Mr. Morrill has planted forty acres of this variety.

THE MORRILL ORCHARD CO.

This is one of the largest and most interesting enterprises of the kind in the country. In the first place much of the land has been reclaimed from the original oak pine and persimmon scrub. The native trees are small but tenacious of life. Mr. Morrill proceeded on the principle that immediate and complete eradication was best and cheapest in the long run. The land was grubbed and cleared of roots as well as tops before planting. It is then planted with peaches and intercropped with tomatoes, potatoes, cantaloupes, sweet potatoes or melons. Mr. Morrill is also experimenting with tobacco.

THE OUTLOOK.

The results thus far have been most encouraging. The secondary crops have practically paid for the cost of the improvements and the company has now a valuable property. The quality of the peaches grown compares favorably with those produced in any part of the world (Texans claim they are the best.) The crop matures slightly

ahead of that of central Georgia and the shipping facilities are being carefully looked after by the officials of the Cotton Belt Railway who are themselves financially interested in fruit-growing.

One is much impressed by the warm eloquence of the Texan land promoter when advocating the advantages of the region, but we are free to say that a single demonstration of the type of the Morrill orchard Co. is more efficacious and of greater advertising value than reams of printed matter, or hours of oratory.

The Truck and Fruit-Growers' meeting developed, or one might say, degenerated into a series of disconnected hurrahs for Texas soil, climate and recourses. A reasonable amount of this was first rate and enjoyable because characteristic, but even a good thing begins to pall upon a satiated appetite after a while.

The personal comfort of the visitors was cared for most efficiently by Mr. W. C. Dunlop of the Passenger Department of the Cotton Belt Railway.

After this brief visit to the edge of Texas and short acquaintance with her hospitable people, we are prepared to guarantee that the 1906 meeting of the Association of Nurserymen will be one of the most interesting in the history of the organization. The hospitality of the people of Texas is proverbial and that the railroads will lend their powerful aid towards making the convention an unqualified success.

Quiz Column.

Carmel, N. Y., May 26, 1905.

What sort of a stock can I bud cherry or to dwarf it for pot or tub culture?

H. CARMEL, N. Y.

Undoubtedly the best stock to dwarf either sour or sweet cherries or plums, is the native sand cherry. There are two forms of this sand cherry, the eastern and western. The first is known to botanists under the name of *Prunus pumilla*, and the second which is found in the plains of Nebraska and Kansas, *Prunus Besseyi*. This plant forms a low growing bush of sprawling habit. It is evidently intermediate in relationship between plum and cherry, probably more nearly related to the plum than the cherry. It intergrafts with plum, cherry, and peach quite readily. It is easily grown from seed, and like peach seedlings can be grown large enough for budding in a single season. Not all of the seedlings will reach budding size the first year, but a considerable portion are usually suitable. Some of the smaller ones can undoubtedly be transplanted and worked the second season. Seed or plants of this stock may be secured in small quantities from western nurserymen, whose advertisements will be found in the pages of the NATIONAL NURSERYMAN.

If trees are to be grown in pots or boxes, the stocks should be set out in these and budded at the proper time, so that the tree will become gradually accustomed to its environment. The experiment station of South Dakota has made quite extensive experiments with this stock, and has found it useful as a dwarfing stock for the peach as well as the plum and cherry.

T. E. GRIESA, Lawrence, Kans. You will find enclosed \$1.00 for the renewal of THE NATIONAL NURSERYMAN, which I think one of the best publications for nurserymen that we have.

THE SPEECH THAT CARRIED THE CONVENTION.

MR. STANLEY H. WATSON OF TEXAS.

We are all of us bowed down by a load of gratitude to the State of Indiana for the magnificent entertainment it has afforded us here; we appreciate what the people of Indiana have done for us. Don't you ever propose to give the people of the South-West a chance to even up this debt that you have been piling upon them the last thirty years? Don't you ever propose to extend that opportunity to the millions of this American Union beyond the Mississippi? According to this Association the United States is bounded on the west by the Mississippi River, and I am here to call your attention to the fact that beyond that river lies an empire, an empire that will welcome you with open arms.

There has been something said about Dallas being hot, and there has been something said about Dallas being a long way off. We will confess that we have not got the North Pole in Dallas County, Texas, but the idea that the desert of Sahara lies in Texas is all a mistake, and while it may be a little warmer than it is at the North Pole, I do not think that you need to worry about suffering from the heat in Texas. Texas in June is one of the most pleasant places of the earth. If you come down there, we will show you the time of your life. As a matter of fact, just before I left home we put a whole lot of old hens into training and when you get down there you will find that spring chickens are just ripe.

There has been something said about the eastern Nurseryman not going so far and that we will lose all these great men from the State of New York, that they won't go to Texas. But, my friends, no matter where you hold this Convention, remember that little line from Holy Writ which says, "Where you find the worm is, there will you find the hen also," and these big men are hunting for these small nurserymen, and they will go to the Convention if you go to Honolulu. Notice that my friends, they are deeply interested in you; it is the small nurserymen upon whom they grow rich; they are interested in you just the same as the interest which is illustrated by this little story: One warm afternoon—that is away down in the south of Texas where it is warm—I will call your attention to that—a gentleman was walking along the banks of one of our beautiful crystal streams and two little nigger boys were fishing on the bank of the stream, and the little nigger boys you know get sort of sleepy in the afternoon. One of them dozed off and he slipped down into the water, "ker-chunk"; the other one looked around, saw him in the water, dived in after him, pulled him out, laid him on the bank and this gentleman went up to him, patted him on the back and he said, "Brave boy, that was a gallant deed, what is he, your brother?" "No," he said, "that nigger ain't my brother." "Why," the gentleman said, "was he your friend?" "No, sir, not any particular friend of mine." "Well, don't you love him?" "Of course I don't love that nigger chap." "Then why did you risk your life for his?" "Because that nigger had the bait in his pocket." (Laughter) Just so long as my friend the small nurseryman of the west and southwest carries the bait in his pocket, you can depend on it that the big fellows are going to come. Besides that, have you ever figured on the particular variety of watermelon you get in Texas in June. Don't you know that if you come down there we will stuff you so full of watermelon that you won't lick dust.

Now, about this place where we have had so delightful a time, I am informed, and I have taken the gentlemen's word for it, I am informed that of a certain liquid known as "Water" there are thirteen varieties.



STANLEY H. WATSON
Dallas, Texas.

Now, I say, we cannot offer you that many varieties of water in Texas, but I can assure you that if you come down there, you won't dry out.

Another proposition, of course it is mighty nice and convenient also to have this Association right where these big fellows can run up in a few hours, but what about these little fellows down south that can not go a long ways? What is this Association for, any how, if it is not to get bigger and stronger all the time? And don't you know, if you get down to the southwest, that you will get a large number of members that cannot go to Indianapolis? We have not got as much money as you eastern people down there; as a matter of fact, you have been loaning us money and the interest we have paid you has paid your expenses down to the Convention. Ain't you ever going to give us a chance to square?

Now, I want you all to vote for Dallas, vote for Dallas, because every man, woman and child in the State of Texas wants you to come and will welcome you with open arms.

Doings of Societies.

The report of the Western New York Horticultural Society, being the proceedings of the 50th annual meeting held at Rochester, January 25-26, 1905, was received at this office two months ago. We take pleasure in congratulating the society and the secretary on the promptness with which the report of this interesting meeting has been given to members of the association. In some respects the report is a record of the horticultural progress of fifty years, and in that regard is a valuable contribution to the history of fruit growing in Western New York. The frontispiece contains the photographs of nine of the leading men whose names have been connected with the progress of horticulture in Western New York, and who were intimately associated with this society for many years during its early life. The secretary, John Hall, Chamber of Commerce Building, Rochester, N. Y., will no doubt be glad to provide all those who desire this valuable report with copies.

MEETING OF THE SOUTHERN NURSERYMEN'S ASSOCIATION.—This association will meet in Norfolk, Virginia in the Monticello Hotel on June 16 and 17. Mr. H. B. Chase Huntville, Ala., President; C. T. Smith, Concord, Ga., Secretary-Treasurer. This meeting follows the meeting of the American Pomological meeting which occurred in Kansas City, August 8-10. The southern nurserymen promise an attractive program and a large attendance is looked for.

The Missouri State Horticultural Society held a very successful summer session at Versailles. A full and interesting program was completed. Committees were appointed and plans outlined for the reception of the American Pomological Society in Kansas City, Aug. 8-10.

HOW THE WESTERN NEW YORK NURSERYMEN GOT TO THE CONVENTION AT WEST BADEN.

It was a jolly crowd that left Rochester, Monday night June 12th bound for the convention. A full carload and an overflow in another car, and there were frequent additions as the special car sped on its way. The special Pullman sleeping car left over the New York Central and made good time to Buffalo. Here were gathered in Mr. and Mrs. Harlan P. Kelsey. At Buffalo the car was attached to a fast express on the Lake Shore and Michigan Southern with Cleveland as its destination. At Dunkirk the train stopped long enough to pick up Mr. and Mrs. Geo. S. Josselyn, of Fredonia. Cleveland was reached during the night and from there the car was sent out on a train of the Big Four, and later in the day was attached to the Monon which carried it direct to West Baden Springs, arriving there about 5:30 Tuesday afternoon. There was a two hour stop at Green Castle, Ind., to make connections, and the time was spent by the pilgrims in hunting dinner. A descent was made on the principle hotel there and it was pretty well cleaned out. Some of our Alabama nurserymen were particularly well fed on strawberries while the Newark men cleaned up everything else in sight.

Those who journeyed in the special car were loud in their praises of the arrangements for their comfort that had been made by the railroad over which they traveled, and to the New York Central, Lake Shore and Michigan Southern, Big Four and the Monon we express our appreciation of their efforts.

ECHOES OF THE CONVENTION.

Hoosiers are good entertainers.

The flavor of No. 7 will long linger in our palate.

Ducks and fans will be the order of the day in marching on Dallas.

Father Stringfellow is certainly enthusiastic, though he may not be logical.

White's Class Advertising Booth was popular; visitors were "chained" to the spot.

Vincennes cherry trees were declared by those who saw them, to be the finest in the land.

Moore's lecture was most instructive, McFarland's entertaining and Hays' most suggestive.

Every now and then one would hear of the White Star Brand of Raffia landing a new customer.

In cracking his customary jokelets, Albaugh landed with special vigor on the agricultural college graduate.

They say the "fool killer" in the swimming tank was harder to ride than any goat ever mounted by a fraternity man.

Secretary Seager doesn't do much talking but he nails the papers every time before they get back to the familiar breast pocket.

The magnificent contribution of peonies by the Jev Nursery Co. of Lake City, Minnesota, were the crown jewel of the exhibit.

Among the busy men were Harlan P. Kelsey, Mr. Beckley the manager of Mr. McFarland's fine duplicating lantern and Emory Albertson.

The new president takes office with the hearty support of every member of the Association. He will do his duty. Let every man do the same.

The eastern contingent, the nucleus of which was the Rochester delegation, started out for a good time and didn't forget the intention for a moment.

It is hereby voted that the convention had a large dose of root gall. Listeners came away with various impressions: That there are galls and galls. First know your gall.

For the latest information on the weight, appearance and fighting ability of Indiana badgers apply to Pete Youngers, Charlie Yates, T. B. Meehan or Al. Wood—and there are others.

Assistant Secretary Hays made an excellent impression. He is clear and sound on broad educational problems. His moving pictures illustrating wheat breeding were much enjoyed.

"The speech of the Texan for Dallas was a corker," said one. "The result would have been just the same had he spoken in favor of Labrador or Van Demans Land," says another.

By the way, managers of athletic events are reminded that thoroughly unbiased and reliable officials, timekeepers or referees, may be found in Rochester. Apply early services much in demand.

IN THE CORRIDOR—No. 1: "That printer fellow has a way of crackin' 'em right off the bat, hasn't he?"

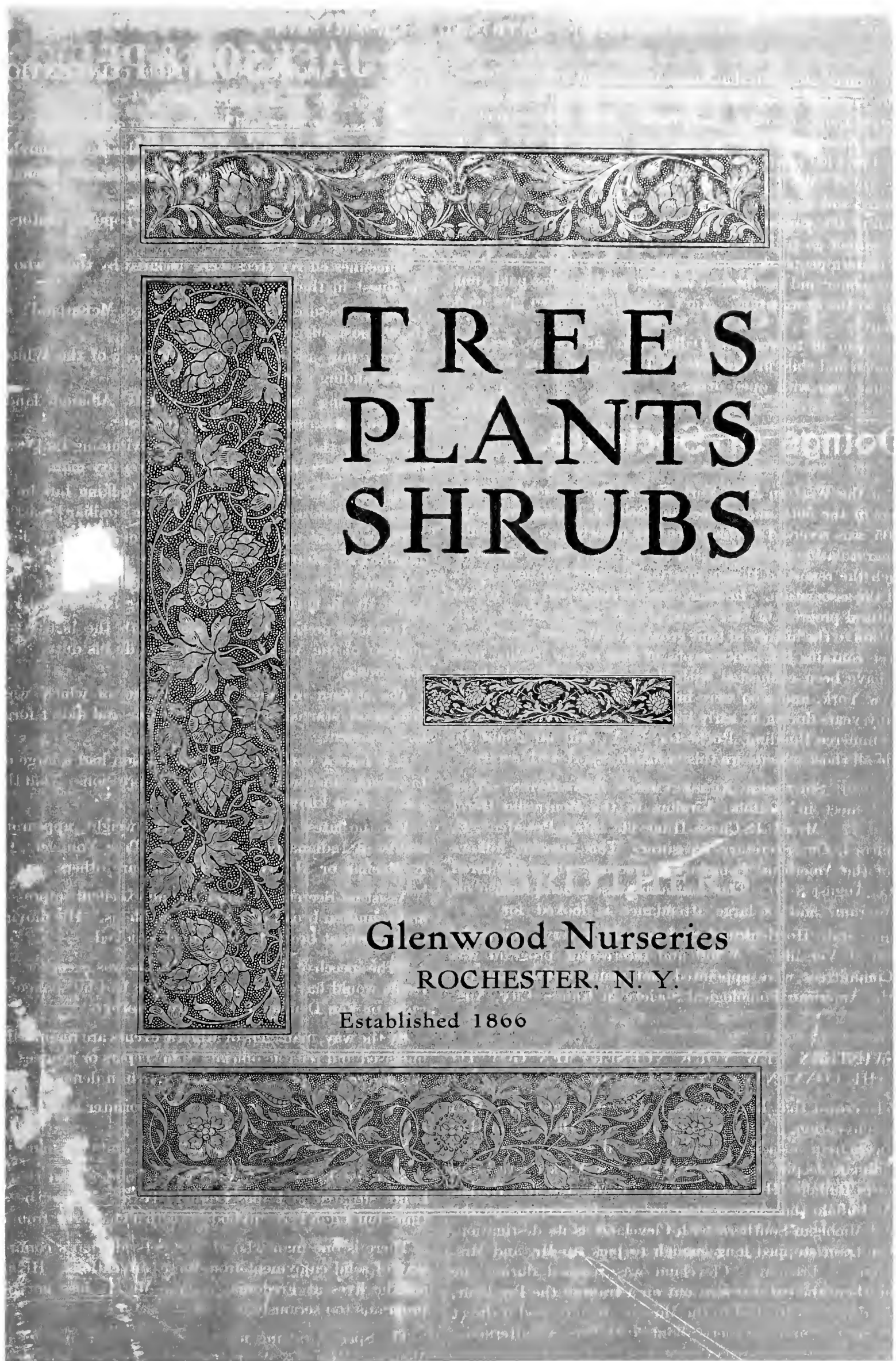
No. 2: "You bet he has, and he often hits the mark too."

Said the Texan: "I want you to understand that the North Pole is not situated in Dallas County, Texas. It may be a trifle warm at times but I don't see anybody's teeth a'chatterin' from cold right here."

There is one man who always gets all that's coming to him in the way of solid enjoyment from these conventions. His name is Josselyn and he lives at Fredonia, N. Y. Mr. J. does not believe in taking programs too seriously.

The Speer Grafting machine introduced and exhibited by E. G. Mendenhall at the West Baden Convention was highly commended by all. The sample machine was sold and a goodly number of orders booked. All growers should have one. Send for catalogue and price list.

CHARLTON NURSERY CO., Rochester, N. Y. We take pleasure in enclosing you herewith our check for \$1.00 in payment for our renewal subscription and desire to say that the journal certainly meets with our approval and you may always depend upon our aid and support as long as it is kept up to the present high standard.



A SIMPLE CATALOGUE COVER — SUGGESTIVE AND
EFFECTIVE — HAPPILY COMBINING TYPE AND TASTE

J. HORACE McFARLAND COMPANY
Mount Pleasant Press
HARRISBURG, PENNSYLVANIA



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IN COLOR BY
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HARRISBURG, PA.



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PHOTOGRAPHS AND COLOR NOTES

J. Horace McFarland Company
Mount Pleasant Press
Harrisburg, Pa.

ESTABLISHED 1875

Mt. Arbor Nurseries

E. S. WELCH, Prop. - - SHENANDOAH, IOWA.

One of the largest, best equipped and most up-to-date nursery plants in the United States.

Large Supply for Fall 1905, Spring 1906.

APPLE.

Over 100 Best Varieties.

PLUM AMERICANA

Largest Stock in the United States.

CHERRY

Leading Sour Varieties.

APPLE SEEDLINGS

Grown on New Land Free From Disease.

ROSES

Fine Lot, Hybrid Perpetual Climbing and Ramblers.

ORNAMENTALS

Splendid Stock of Best Kinds.

Forest and Deciduous TREE SEEDLINGS

One to Two Million Leading Kinds.

APPLE GRAFTS

Made To Order.

Is your name on our mailing list?

Three Wholesale

Price Lists

(To the Trade only.)

**Fall, Winter
and Spring.**

Wood Labels

Both Plain and Printed

For Nurserymen And Florists.

We are looking for the business of those
Exacting Buyers who demand
the best article for their purpose.

SAMPLES AND PRICES CHEERFULLY
GIVEN.

Dayton Fruit Tree Label Co.

South Canal St.

DAYTON, OHIO.

When writing to Advertisers mention The National Nurserymen.

Albertson & Hobbs

BRIDGEPORT, MARION CO., INDIANA

Over 300 Acres of Young Nursery Stock

Indianapolis and Plainfield Electric Cars pass our office hourly, 30 minutes ride from Indianapolis.

A FULL LINE OF GENERAL NURSERY STOCK
FOR FALL 1905 AND SPRING 1906

APPLE, PEACH, PEAR, PLUM, CHERRY,
CAROLINA POPLAR, BOX ELDER, CAT-
ALPA, SILVER MAPLE, NORWAY AND
HARD MAPLE, AND OTHER SHADE AND
ORNAMENTAL TREES.

IN CAR-LOAD LOTS, OR ASSORTED CAR-LOADS

Also large stock of Ornamental Shrubs, Vines, Evergreens, Roses and Small Fruits.

Apple, Pear, Plum, Cherry and other Seedlings. Forest Seedlings, etc.

Shipments from Bridgeport, Ind., Topeka, Kan., or Dansville, N. Y.

We invite your personal inspection of grounds, packing houses, stock, etc.

Packing and shipping facilities are the best. Stock stored in fall for winter or early spring shipments.

Our SPADES are the BEST and CHEAPEST made.

EXCELSIOR (baled dry), the best packing material either for storage or shipping.

We Hope to Have Chance to Price Your List of Wants

BERT MITCHELL,

MATHER, WIS.

—DEALER IN—

SPLAGNUM MOSS

AND ALSO

Evergreen Trees, Spruce, Tamrack and White Birch

AT LOW PRICES.

My Moss is absolutely dry, baled in burlap and in wire bales at low prices. Don't be fooled by other dealers. Ask for prices before placing your order elsewhere.

LENAULT, HUET & COLOMBE,

NURSERYMEN,

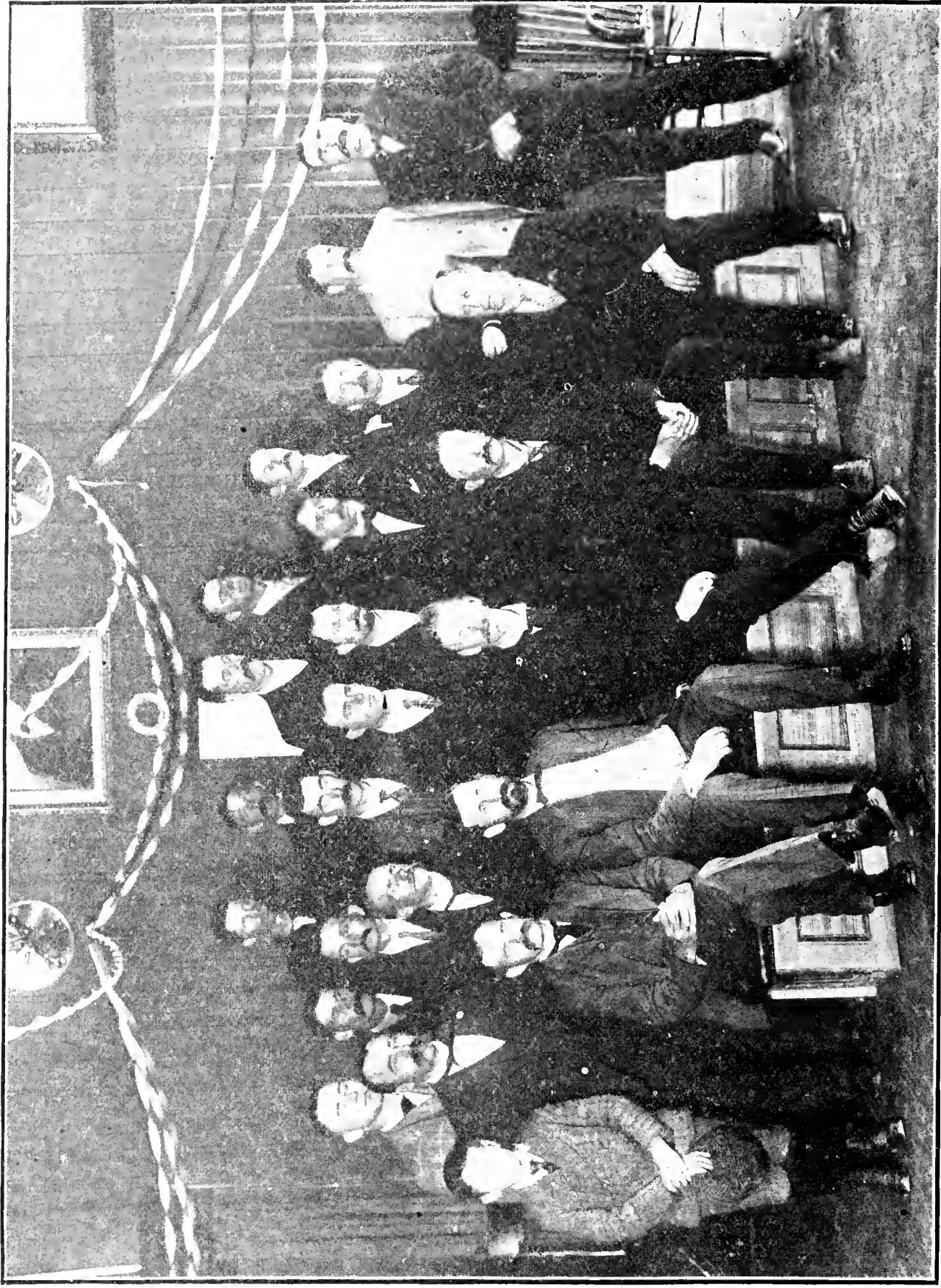
USSY, CALVADOS, FRANCE.

Growers and Exporters Of French Nursery Stock

A great assortment of fruit trees such as Mahaleb, Mazzard, Myroblan, Pear, Apple, Quince, Manetti, Rose, Multiflora, Forest Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

When writing to Advertisers mention The National Nurseryman.



SOME MEMBERS OF THE PACIFIC COAST NURSERYMEN'S ASSOCIATION PORTLAND, OREGON, JULY 5-6, 1905.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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ROCHESTER, N. Y., AUGUST, 1905.

No. 7.

OFFICE MANAGEMENT

THOS. B. MEEHAN, DRESHERTOWN, PA.

Abstract of address before Nurserymen's Association,
West Baden, Ind., June 14-16.

We have had speakers appear before this Association year after year, who have told us all about "whole root" and "piece root" grafts, crown gall, black knot, San José Scale and other pernicious insects and diseases and the remedies for them; and we have had discourses and discussions on almost every subject under the sun, but I fail to find in the Annals of the Association that any one has ever had the nerve to tell us how to manage our offices, or to call attention to the mistakes we are all liable to make and the means of preventing them,—or to suggest any devices or forms that would be of help to us in our office work.

I hope, therefore, that this may be an opening, though I feel that I am treading on very thin ice, and in fact I am creating an opportunity for some of my friends to "roast" me for some of the omissions or errors I probably committed this spring. But, to all such I would say "do as I say, not as I do."

Another thing I want to make clear. The nature of this subject makes it rather a personal one,—but I do not want you to think I am holding my office up as a model. I merely want to show what we do to save time and make our work run more smoothly,—and to call attention to some of the mistakes that have particularly come to my notice during the past year or so, and how they might have been obviated.

MAY SUCCEED AS A GROWER AND FAIL AS A SELLER.

To be successful in the nursery business it is necessary that we should thoroughly understand the various methods of production and cultivation, and to produce and handle our stock as economically as possible,—for in these days of sharp competition and small profits it is absolutely necessary that we practice economy in the smallest particular if we are to show a balance on the right side of the ledger at the end of the year.

But to be a practical grower is not all that is necessary to make your business a profitable one. The art of selling goods is really more essential, than the practical experience of growing them. I know a man who is a practical grower of ornamental stock and raises some of the finest plants that come on the market, yet he does not understand marketing, and the consequence is that what he does sell is at such a low price that he makes no profit on it. Now if he was as good an office man as he is a grower he would do a big and profitable business.

THE CATALOGUE.

The preparation of a trade catalogue is one to which sufficient care is rarely given. With most of us we depend upon our catalogues and printers ink in general to act in the capacity of a salesman, yet in many cases what an unattractive

fellow you put on the road and frequently his statements are very exaggerated and incorrect. For instance, here is an illustration that appeared in a circular this spring labeled "Spiraea Billardi" (showing cut). Those of you who are familiar with the plant will recognize *Spiraea Van Houttei*. Here is another one that looks like an electric fountain. It is marked "New Hardy Spiraea Van Houttei". Did you ever see a specimen of it that looked like that? Here is a picture tagged "*Viburnum plicatum*." Why use such grotesque illustrations as these when good half tone pictures that actually represent the plant can so readily be procured, and which would not only help to sell the plant, but aid in making the catalogue attractive and a work of art.

Now I have here some circulars received this spring,—they are sent out to get business. Do you suppose they brought in as much business as one neatly gotten up, nicely arranged and printed in an attractive style so as to catch the eye?

Why the first impulse would be to throw them in the waste paper basket,—they look cheap. There is so much printed matter sent out to catch business that it takes something more than words to draw attention to what you have to offer.

In marked contrast with these sheets, look at this trade catalogue. It is a work of art in itself, and even if you do not want to buy roses you would look through the catalogue anyhow. That is what your printed matter is for. Even small circulars can be gotten up to look well and the expense is very little more than a cheap looking card or sheet.

CORRECT NOMENCLATURE.

Another inexcusable mistake in many trade catalogues is the incorrectness of names. This is a very serious one. For instance if you list "*Syringa*" do you mean the Lilac,—the botanical name of which is "*Syringa vulgaris*" or do you mean the "Mock Orange" botanically known as "*Philadelphus*?" Now suppose any one sends us an order for "*Syringa*" what shall we send him—the Lilac or the Mock Orange?

Here is another problem which we have to decide sometimes. A customer orders *Hydrangea paniculata*,—does he really want the type, or does he want the variety *Hydrangea paniculata grandiflora*,—the large flowering sort? Nine times out of ten he wants the *paniculata grandiflora* and kicks because he did not get it and when we return him his letter to prove that we sent what he ordered, he will usually tell us that we ought to know what he wanted.

CARELESS ORDERING AND STYLE OF ORDER SHEET.

Carelessness in writing out an order for goods is one of the serious mistakes in office work. We have several trade customers who always write a three-page letter with their order scattered all through it, and it generally takes about half an hour's time to make out just what is wanted. The up to date office has a regular order sheet with full shipping instructions. It should be a printed form and nothing but

the order for the goods and shipping instructions written on it. If there is anything else to write about at the same time, write it on a letter sheet,—don't put it on the order sheet. Most well regulated offices file their orders separate from their letters.

I have here a copy of an order sheet such as we use. Unfortunately in many cases the instructions noted thereon might as well be omitted because no attention is paid to them, thereby resulting in confusion and vexation finally to the party from whom we ordered the goods as well as ourselves.

This order sheet states how to ship the goods and if to be forwarded direct to our customer, it is plainly stated. Where we have the stock shipped direct to us, it is to cover some item that is required to fill an order of one of our customers. To simplify matters we have a system of letters and numbers by which all correspondence pertaining to such orders can easily be traced and when shipment reaches our packing house the foreman can tell at once without opening the box or bale what order the goods are to be used in and it is set aside unopened until it is required.

For instance we send an order to James Blank for certain stock,—it is to be marked "M. S." No. 36. The digging sheet containing the order in which Blank's stock is to be used is marked "Purchased stock M. S. No. 36" with a record of Blank's name affixed, or several names if more than one order of stock has been purchased for this shipment. When our goods are dug and sent into the packing house the foreman can quickly assemble the several shipments that have come in marked "M. S. No. 36" and everything works lovely. Now that all seems very simple, and the instructions on the order sheet are very plain, but a good many people to whom we send these orders seem to think it was gotten up especially to annoy them or give them extra work,—at any rate they do not pay any attention to it. Trouble first starts when we receive a printed acknowledgement of the order, reading something like this,—“Yours of the 24th received and will have our careful attention.” That is clear enough as far as it goes, and does not commit them to anything in particular. The order sheet reads “Mark number of order and initial on bill and acknowledgment” but he does not pay any attention to that. We may have sent him three separate orders on the 24th and the card acknowledgment gives us no idea of which of the three it refers to. After some work in hunting through copies of orders we have sent out and perhaps after all have to send the acknowledgment card back to the sender to get the information, we get it straightened out. This loss of time would have been saved if instructions had been followed.

When the bill is forwarded, we probably have to go through the same thing again, because the number and initials were not marked on it as directed and we cannot properly check it up.

Finding that these instructions were so frequently neglected it seemed to be that we had asked more of the nurseryman than he was willing to do, and the omission occurring so frequently and creating so much confusion we had a special acknowledgment postal card printed, which we now fill out with the order number and initials and enclose with each order sent out. That seems to fix it so far, but I expect to get a card back some day without any signature on it,—then we will have to commence filling in the signatures too.

THE TAG PROBLEM: EXPRESSAGE.

We have our printed tags to be used and attached to all shipments sent to us. On these we note the order number and initials and the name of the firm from whom we ordered the goods so that the shipment can be identified when it arrives. On the tags used for express shipments we have printed “Notice to Express Agents.” This package contains plants or seeds and is subject to 20 per cent. less than merchandise rates. “See General Specials.” We happen to occupy the position as express agent at Dresher Station and by checking up the way bills and comparing them with the tariff we found that agents were very apt to ship goods at merchandise rates and fail to give us the advantage of the 20 per cent. discount to which all nurserymen are entitled. Since printing this notice on our tags this rarely happens now. You can save many a dollar on your express bill if you have this notice printed on your tags. There is another clause on the order sheet that we find it is difficult to have carried out. It reads “Charge to this Office. Do not confuse with any account or orders you may have from our Germantown Office.”

That seems to be the hardest nut of all the crack. At the close of the season, nine times out of ten the bills for the two places are rolled into one account, and they have to be straightened out before settlement can be made. There is surely no excuse for this, and there is something wrong in an office where such a thing can occur.

I was unmercifully “roasted” this spring, because I wrote a firm and explained that the letter he wrote we evidently referred to an order which must have been sent him from our Germantown office, and I could tell him nothing about it. It is a grave mistake for a manager of an office to let his temper get the better of him and it is even worse to put it down on paper.

Did you ever notice how careless people are in drawing check and money orders? Our firm name is printed in good clear type on all our stationery and catalogues, and we have our bills printed “Draw checks to the order of Thomas Meehan & Sons, Inc.,” yet checks are received drawn to the order of Thomas Meehan, Meehan & Sons, T. B. Meehan & Sons, Thomas Meehan & Sons and so on down the list.

LOOSE LEAF LEDGER SYSTEM.

In the good old days when we got \$20.00 to \$25.00 per hundred for 2 to 3 feet *Hydrangea paniculata grandiflora* and never less than \$15.00 to \$20.00 per 100 for any variety of shrub of that size, and the “Surplus List” with “Prices cut in half” had not yet made their appearance, we made out our bills with pen and ink and wrote them in the day book or journal in the same good old way. That is too slow now,—we must keep up with the march of improvements if we expect to keep our work up to date. It would take a small army of bookkeepers going now to do it in that way.

The advent of the loose leaf ledger system was a help to us and we now make our entries from our day book and the bill for the goods at one time. This is done with a double sheet and carbon paper. We had a sheet prepared and printed expressly for our purpose. (Exhibited sheets.) You will notice that the outside of the sheet is printed in the form of a bill. The inside sheet is the copy to go in the day book. After it is written off on the typewriter the sheet is separated

on the perforated line, and we have a neat, clear and easily read bill, and the entry made for our day book all in the one process.

We have a Gorin Tabulator attachment on our typewriter by which the simple pressing of a key will move the carriage along to any desired point, and you can write in columns without adjusting the machine for each line. This tabulator attachment does not interfere in any way with the use of the machine for writing letters when not being used for billing purposes. In fact we use these tabulators on all our machines as they are a great labor saving device for writing estimates or any matter where columns of figures are to be written or any statement prepared in tabulated form.

Under this system we believe that one bookkeeper can do the work more quickly and more satisfactorily than three bookkeepers with a pen rewriting the account in a day book under the old method.

We also use the loose leaf ledger. As soon as an account is paid the ledger leaf is removed from the "live" ledger and put in the "dead" cover. When the account is open again the "dead" leaf is restored to the "live" ledger. In this way our ledger shows only open accounts.

THE IMPORTANT STOCK BOOK.

Our stock book is patterned after the one in use by nearly all nurserymen, but we have ours made to order and especially ruled to meet our requirements.

First there is a column in which we note the quantity we have to offer,—then the name of the plants, the size; this is followed by columns used for prices,—per 10, per 100 and per 1000. We show these prices here as we use our stock book from which to make up our estimates and, so that when the orders are being booked the prices can be affixed at the same time to the order sheet for the use of the bookkeeper when billing the goods. By using our stock book in making up offers and estimates we can see at a glance just what stock we have unsold and we never make an offer when we are actually sold out of stock, or have not the quantity enquired for.

In booking these orders we put down the name of the party ordering the stock, the quantity ordered and the balance left unsold. We know then just what we have left without taking the time to cast up the figures each time.

We send out a considerable number of catalogues, folders and printed postal cards and for the addressing we use an Elliott Addressing Machine. On this machine we can address 10,000 catalogue envelopes on one day.

Our address lists are all classified and if we want to send some circulars to any particular set of customers or to any state or states, the cards or envelopes can be addressed quickly and without labor of sorting and selecting each name.

[Mr. Meehan exhibited quite a number of blanks and forms offering to send them to all who were specially interested in the subject.]

DID IT EVER OCCUR TO YOU.

THAT RAIL TICKETS ARE ACCEPTED ON D. & B. DAILY LINE STEAMERS?

Under special arrangement with the Michigan Central, Wabash and Grand Trunk Railways, all classes of tickets reading via these lines between Detroit and Buffalo, in either direction, will be accepted for transportation on D. & B. steamers.

Send a two cent stamp for illustrated booklet. Address

D. & B. STEAMBOAT CO.,

Dept. A.

DETROIT, MICH.

THE SALES END OF THE NURSERY BUSINESS.

A CLEAR DISCUSSION OF AN IMPORTANT SUBJECT.

The present dissatisfaction among nurserymen in general, with the sales end of the business, is, it would seem, due largely, if not entirely, to a lack of system and organization of the nurserymen themselves. In almost every other business, prices are practically controlled by the laws of supply and demand, and this should obtain in the nursery business—both as to domestic and foreign stock.

The line between wholesale and retail business should be more sharply drawn and more closely observed. Take, for instance, the case of Landscape Architects, buying for their clients both large and small quantities of material at trade prices, or at figures even lower. Why should the owner of a country estate be able to purchase stock at trade prices through his architect, any more than if he ordered it direct himself? Is this possible in any other line of business? The Landscape Architect, according to customs and rules of business generally, *should only be entitled to strictly trade prices when he buys outright for his own account to sell again.*

This evil would easily and in a comparatively short time be done away with by co-operation among the responsible men in the business. If they would agree to stand together on the lines indicated, and, when called upon to quote prices in competition, they would name only such figures at which first-class stock can be sold to ensure a profit, and never quote nurserymen's prices to anyone outside the trade, or those strictly entitled to trade rates, it would tend directly to make purchasers realize that good stock is always worth a good price, and that quality is to be preferred to cheapness of price.

Under the present conditions, with so many irresponsible men in the business, against whom one is called to bid in competition, it is simply "a cut-throat game;" hence, it often follows that the man with the worthless, poorly-grown stock is getting the business and making money out of it, or else the more responsible houses are meeting his figures and selling a far better quality of stock at a price that, for the very reason that the stock is better and has cost more to grow, is causing their books to show deficits instead of profits.

As to the competition from the department stores coming into the field, and offering stock at prices so far below the actual value of good material of its kind, this will cause no one any fear, for it will not take people long to realize that at the prices at which they sell, they cannot deliver high grade stock either as to name or quality. The department stores have been offering Holland grown roses at two for a quarter, or less, and as no one for a moment imagines that they are willing to lose money, it is easy enough to understand that they buy cheaply; and yet to anyone familiar with the price of first-class Roses in Holland, it is difficult to realize how, if they pay the current trade price, the department stores can make the price they do. But, as a matter of fact, they do not pay the current trade price, or always get stock that is true to name. The stock they obtain is not infrequently culls that no first-class nurseryman would invest in, but the Holland grower is learning a few Yankee tricks, and is glad to get rid of his worthless stock at any price, and may chance to label a Cabbage or Provence Rose with a La France or Hermosa Label, with few, if any, qualms. This of course is

sharp practice, and in justice to the Hollanders, it is only fair to say that none of the older or more responsible firms would stoop to it. And, like all such methods, it cannot in the end prosper. The people who buy and plant will finally awake; the department stores will find their sales are falling off; or the business confined to undesirable patrons; and the over-zealous Hollander will realize that the honesty of his forbears is preferable to Yankee sharpness.

The present conditions in the nursery business, unless combined action is taken by the leading firms, to stop quoting "Trade prices" to those not entitled to them; refusing to meet any but honest and responsible competition, and to keep separate and distinct, wholesale and retail business, will prevail, until the purchaser himself, who, in almost every business, sets the price by his insistence on high quality, or his indifference to it, realizes that at present prices, he cannot be sure of getting the best, and becomes more careful of the firm from whom he buys. Until then, the man who desires to make money in the nursery business must necessarily "go slow." Refuse to sell for less than for what he can afford, and be careful to sell only the best and at a fair price, and wait until time shall prove that in the nursery business, as in everything else, it is always a case of "the survival of the fittest."

New York.

FREDERICK W. KELSEY.

A GREENHOUSE CONSTRUCTION MERGER.

An important consolidation of greenhouse construction firms occurred quite recently. Formerly we had the Lord & Burnham Company, Hitchings & Co., and the Pierson-Sefton Company. Instead of these three separate firms we now have the Burnham-Hitchings-Pierson Co. The new firm will finish all uncompleted contracts made by the individual concerns and the active workers in each will remain in the new company. This consolidation will make a remarkably strong business enterprise. Its splendid manufacturing facilities cover iron, wood work, and all the parts which enter into the construction of greenhouses. Each company in the past had its specialties. These specialties will be continued in the future. We wish the new management every success.

THE BEAN PLANT IN NEW YORK.

The bean planting in New York has been quite heavy but the excessive rainfall of the early summer has checked growth and brought on rust and blight to such an extent that in some sections the crop has been ploughed under and the place given to buckwheat or millet. On high ground, beans are doing well, and there is no cause for complaint. Some farmers are spraying their beans for the prevention of rust anthracnose.

The area devoted to onions is also large, but blight has appeared in many sections and is likely to reduce the yield.

EDITOR'S ACKNOWLEDGMENT.

The editor of THE NATIONAL NURSERYMAN has pleasure in acknowledging the receipt of a beautiful crate of Belle of Georgia peaches, thoughtfully forwarded by the Ohio Fruit Land & Orchard Co., Fort Valley, Ga. This peach impresses us as being one of the best of the white free-stone varieties. The fruit came through in excellent order and kept for several days after its arrival.

T. C. THURLOW & Co., West Newbury, Mass. Enclosed please find \$1.00 for THE NATIONAL NURSERYMAN for one year. That is the paper above all others that I cannot do without.

Doings of Societies.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

This association held its annual convention in Buffalo June 28 to 30. The executive committee made the following recommendations which were adopted:

1. To raise the annual dues from \$2 to \$5.
2. The office of secretary and treasurer be combined.
3. The secretary to receive an annual salary of \$100.
4. The annual banquet to be dispensed with.
5. Members one year in arrears be suspended.
6. That an editing committee be appointed to revise all papers and bulletins.

The convention consisted of a minimum of program and a maximum of entertainment. On behalf of the American Civil Association, Mr. J. Horace McFarland, who is president, addressed the convention. The entertainment consisted of lunches, drives, and a visit to the Botanical Garden of Buffalo.

The following officers were elected: President, Theodore Wirth, Hartford, Conn.; Secretary and Treasurer, J. W. Duncan, Jamaica Plains, Mass.; Vice-Presidents, Byron Worthen, Manchester, N. H., John Chambers, Toronto, Can.; W. J. Zartman, Brooklyn, N. Y.; Edward Baker, New Orleans, La.; W. R. Adams, Omaha, Neb.; R. W. Warder, Chicago, Ill.

A CANADIAN NURSERYMAN'S ASSOCIATION.

A number of nurserymen of Ontario got together at Niagara Falls on June 26 and organized an association of Canadian Nurserymen for the protection and advancement of the nursery business in Canada. The next meeting was called in Hamilton on July 17, but was postponed. The organization includes mostly nurserymen of Ontario, but, as I understand it, it is to take nurserymen from other provinces if they are disposed to join. The following officers were elected: E. D. Smith of Winona, president; E. Hirsee, of Woodstock, and W. C. Reid of Belleville, vice-presidents; C. C. R. Morden of Niagara Falls, secretary; L. W. Carpenter of Winona, treasurer.

Toronto.

AMERICAN SOCIETY OF LANDSCAPE GARDENERS.

The second annual meeting of this society occurred in Boston about the middle of July. This society has a small membership made up of influential men. It is comparatively young but is making vigorous growth. The President is Professor John F. Olmstead, Brookline, Mass.; vice-president, Mr. Samuel Parsons, secretary, Mr. Downing Vaux; treasurer, Charles N. Lowrie. The meeting resolved itself largely in the examination of striking samples of landscape art in the vicinity of Boston. When we realize that Boston's park system cost her about \$16,000,000, and is at the present time in the course of construction, one can realize that there is something to see.

THE SOCIETY OF AMERICAN FLORISTS AND ORNAMENTAL HORTICULTURISTS.

This society meets in Washington this year, on August 12 to 13. One of the features of the program is a series of prizes offered by treasurer Beatty for the best essay on "The Ideal Employer." The prizes are 25, 15 and 10 dollars for first, second and third respectively.

TRANSPORTATION EXPERIMENTS BY THE GOVERNMENT.

The Division of Pomology at Washington, through its agent, G. Harold Powell, and his assistant, L. S. Tenny, is undertaking an experiment in connection with the shipment of citrus fruits in California. Says the Pacific Fruit World:

"The main object of these studies is to lessen the loss commonly occurring in the shipments of fruits to the eastern markets. This loss is largely due to the premature ripening of the fruit, either before consignment or in transit. Experiments are now being made, designed to make a rapid and thorough cooling of the fruit before placing it in the cars. At Newcastle careful experiment is going on under the direction of Mr. Powell. The temperature of the fruit is reduced to forty degrees before loading it and it is then placed in the cars having an equally low temperature. Mr. Powell's investigations are attracting the attention of fruit growers and fruit shippers to the serious factor of loss in the handling of fruits."

Correspondence.

LOW HEADS.

EDITOR NATIONAL NURSERYMAN.

I am sorry to say the Fruit Growers in Canada are slow to see the advantage in low headed trees, and there has not been much change in that direction, consequently we head our stock about as formerly, to meet the wishes of our customers.

Many planters think it necessary to have the heads of the trees high enough to allow a team to go under them, and as a rule, on receiving trees from the nurseries they will trim off all the head and leave one limb to form a new and higher head. This I consider a mistake, and have advocated low headed trees for over twenty years.

Fonthill, Canada.

MORRIS & WELLINGTON.

ADVANTAGES OF LOW HEADS.

It is an undoubted fact that trees with low well balanced heads are getting daily more in demand and command a higher price, particularly those destined for lawn use in distinction to avenue trees.

It still remains necessary that a street tree should be trimmed to not interfere with pedestrians, carriages and street lighting.

A low top shades the trunk and the earth underneath more and thus prevents the bark sunscalding and the ground from drying out.

Chicago, Ill.

WM. A. PETERSON.

APPRECIATIVE.

EDITOR NATIONAL NURSERYMAN.

The Souvenir issued by the NATIONAL NURSERYMAN Publishing Company, giving a history of the nurserymen, is a pamphlet that all nurserymen should be proud of and should retain in their office for reference.

It is a pleasure for the younger nurserymen to know just how small a beginning many of the substantial nurserymen of the country to-day started with.

Yours very truly,

Berlin, Md.

J. G. HARRISON & SONS.

EDITOR NATIONAL NURSERYMAN.

We consider the souvenir booklet a very excellent piece of work, and it contains much information that is to the interest of all members of the Association and the trade generally. There are many things regarding the history of the Association that we think but few of the members knew or had thought of. Yours truly,

Bridgeport, Ind.

ALBERTSON & HOBBS.

EDITOR NATIONAL NURSERYMAN.

Your souvenir booklet to the members of the American Association of Nurserymen has been received. I am very much pleased with it and I think it the general feeling that the NATIONAL NURSERYMAN has become a necessity to everyone in the trade.

The remarks in your "Foreword" on the Mission of the Nurseryman and the force of an example in a community, has been very decidedly demonstrated in our town and vicinity.

My father was a great lover of trees and ornamental plants. Coming to this place at its first settlement he at once began to plant orchards, and trees along the roadside. The effect of this example is shown in the great number of trees planted in the town and vicinity. This of course was much more apparent twenty-five years ago when the planting of trees and ornamenting of homes was not as common as now but the influence is still evident.

With best wishes for the success of the journal, and thanking you for the souvenir.

Princeton, Ill.

ARTHUR BRYANT.

"We desire to commend the missionary work you are doing for the benefit of the public rather than the seedless apple promoters. More work of this character in the past would have protected the long suffering public from undesirable novelties such as the so-called Utah Hybrid cherries which as you will remember was a miserable common little sand plum, nevertheless it sold like wildfire at \$2.00 to \$3.00 per tree.

The growing season has been generally favorable, more so we think than for several years.

SUBSCRIBER.

THE STORY OF THE ARNOLD ARBORETUM.

INTERESTING LECTURE BY J. HORACE MCFARLAND.

Certainly the most entertaining and at the same time one of the most instructive addresses presented at the West Baden meeting was that by Mr. J. Horace McFarland, Harrisburg, Pa. It was entitled "A Tree Garden to Last a Thousand Years," and was a story of the conception, foundation and management of this great botanical garden. It was magnificently illustrated with colored lantern slides presented by the use of a new type of duplicating stereopticon.

This lecture was entertaining, because it was presented in a pleasing way, and it was instructive, because the trees and shrubs were so faithfully portrayed, that to those familiar with them they were at once recognized and to those unfamiliar, the characteristics were so thoroughly delineated that the type characters could be readily fixed in the mind and remembered.

While the lecture was highly educational and instructive its main purpose was to bring before nurserymen the fact that as a public institution the Arnold Arboretum was acutely in need of financial support. It was a mine of information for nurserymen and plant lovers. It had been brought to its present splendid condition of public service by the self-sacrificing efforts of its director Prof. Charles Sprague Sargent. Nevertheless, the grievous fact remained that it was sorely in need of financial endowment in order that it should remain a continuous and permanent public institution; one which would continue to serve the æsthetic desire and at the same time the technical needs of the plant-loving and plant-propagating public.

DISSOLUTION NOTICE.

The firm of C. A. & J. E. Stoner, trading under the name of The Battlefield Nurseries was dissolved May 17th, 1905, and the business of the Battlefield Nurseries at Gettysburg will hereafter be conducted by C. A. Stoner, who has become sole proprietor of said Battlefield Nurseries.

C. A. STONER,

Successor to C. A. & J. E. Stoner.

The National Nurseryman

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SECRETARY-TREASURER AND BUSINESS MANAGER, C. L. YATES

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

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Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Address Editor, Ithaca, N. Y.

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ROCHESTER, N. Y., AUGUST, 1905.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, E. Albertson, Bridgeport, Ind.; vice-president, Orlando Harrison, Berlin, Md.; secretary, Geo. C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Thomas B. Meehan, Dreshertown, Pa.; Theo. Smith, Geneva, N. Y.; J. H. Dayton, Painesville, Ohio.

Transportation—W. C. Reed, Vincennes, Ind.; J. W. Hill, Des Moines, Ia.; A. L. Wood, Rochester, N. Y.; C. T. Smith, Concord, Ga.

Tariff—Irving Rouse, Rochester, N. Y.; H. T. Jones, Elizabeth, N. J.; H. P. Kelsey, Boston, Mass.

Legislation—C. L. Watrous, Des Moines, Ia.; W. T. Hood, Richmond, Va.; N. W. Hale, Knoxville, Tenn.; R. C. Berekmans, Augusta, Ga.; William Pitkin, Rochester, N. Y.

Programme—John S. Kerr, Sherman, Tex.; H. S. Chase, Huntsville, Ala.; C. J. Brown, Rochester, N. Y.

Publicity—Ralph T. Oleott, Rochester, N. Y.; John C. Chase, Derry, N. H.; Stanley H. Watson, Houston, Tex.

Exhibits—J. H. Skinner, Topeka, Kas.; J. C. Hale, Winchester, Tenn.; C. C. Mayhew, Sherman, Tex.

Editing Report—J. Horace McFarland, Harrisburg, Pa.; C. J. Maloy, Rochester, N. Y.; George C. Seager, Rochester, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

AMERICAN NURSERYMEN'S PROTECTIVE ASSOCIATION—President, R. C. Berekmans, Augusta, Ga.; vice-president, A. L. Brooke, secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.

NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y.; Meets annually in June.

AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y.; Meets annually in January.

WESTERN ASSOCIATION OF WHOLESALE NURSERYMEN—President, Peter Youngers, Geneva, Nebraska; vice-president, A. Willis, Ottawa, Kansas; secretary, D. J. Holman, Leavenworth, Kansas.

SOUTHERN NURSERYMEN'S ASSOCIATION—President, W. T. Hood, Richmond, Va.; vice-president, Henry Chase, Huntsville, Ala.; secretary, J. C. Hale, Winchester, Tenn. Meets at Asheville, N. C., in August, 1905.

SOUTHWESTERN NURSERYMEN'S ASSOCIATION—President, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A. Taylor, Wynnewood, Ind. Terr.

TEXAS NURSERYMEN'S ASSOCIATION—President, E. W. Kirkpatrick, McKinney, Texas; vice-president, B. L. Adams, Bonham, Texas; secretary-treasurer, John S. Kerr, Sherman, Texas.

PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.

PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

We are informed that our friends in Texas are already making preparations for the convention of the American Association of Nurserymen in Dallas next year. The Texas

Nurserymen's Association met at College Station, July 25 to 28. Mr. E. W. Kirkpatrick of McKinney is president and

TEXAS NURSERYMEN ACTIVE. Mr. John S. Kerr of Sherman secretary.

At this meeting resolutions were adopted which will do much to systematize the work of preparing for the coming convention. Committees on finance, attendance, arrangement and entertainment, and reception were appointed. The committee on finance are expected to raise a fund to provide for contingent expenses; the committee on attendance will act as an advertising agency and will use every endeavor to secure a full attendance from Texas and the entire Southwest. The committee on arrangement and entertainment will look after such matters as transportation and excursions. The reception committee will look after the social side of the meeting and attend to the personal comforts of the guests. This business-like manner of attacking the problem augurs well for the success of the meeting.

Nurserymen are all familiar with the periodical kicks registered by purchasers regarding the careless and imperfect manner in which their orders are said to have been packed.

Sometimes these remonstrances are well founded and again they represent a fault finding spirit rather than a real grievance. We propose, in an early issue, discussing this matter of methods of packing. We

would like a very full and frank presentation of experience and practice on the part of nurserymen throughout the country.

We believe that matters of practice like this should receive our attention as fully and completely as those supposedly weightier factors in the nursery business, such as propagation and selection of varieties of fruit. Our patrons have responded to requests of this kind very freely in the past and we trust that they will be equally generous in this case.

One of the editorial difficulties in running this journal has been the constantly increasing pressure upon our reading columns (the pressure upon our advertising pages we are quite resigned to). Every issue a lot of

A FEW PERSONAL REMARKS. interesting matter is omitted. Mr. Stringfellow's interesting address is a case in point. When the time for the next issue

arrives much of this is stale or out of date. Now we do not like to disappoint writer or reader and we would not willingly do so. We might enlarge the paper but with our present circulation we cannot afford the expense. Subscribers will note that while the normal size of the NATIONAL NURSERYMAN is 24 pages most of the numbers for the year just closed have been 28 or 32 pages. We would like to maintain the 32 page size constantly.—nay more we would like to issue fortnightly—but both of these propositions are out of the question unless we secure a larger circulation. Nurserymen cannot afford to be without this journal. This is admitted, yet many of them require three or four reminders before renewing their subscriptions. In saying this we are not scolding or "knocking" we are simply stating a fact, but

fortunately one that can easily be remedied. This journal is for nurserymen. We are not soliciting subscriptions or support from persons outside the trade although our mailing list might be very largely extended by canvassing the fruit growers. The paper is for the grower and dealer in nursery stock. This status will be maintained. This is our firm purpose. On the other hand we want your support. Give heed to the expiration notice and be prompt with renewals. If you like the paper help us extend its circulation.

We have before us a very interesting pamphlet, being the first annual report of the St. Paul play ground committee. This report is made to the Civic League, the Commercial Club, and the Common Council of St. Paul. In the winter of 1904 the city council of St. Paul voted \$2,500 for the purpose of instituting public play grounds.

PUBLIC PLAY GROUNDS.

With this sum, one play ground was equipped and conducted during the past year. The play ground was graded and fitted with appliances for the comfort and amusement of the children. In addition to the outside gymnastic appliances, a building fitted with shower bath and toilet room, with divisions for boys and girls, was also erected. The games and exercises were carried on under the eye of the physical director. The attendance was excellent throughout the season; discipline was not difficult to maintain; the behavior of the boys improved throughout the season; cigarette smoking decreased and general manly qualities strengthened. This is a most interesting experiment, and one that is likely to be copied by other cities.

There is an inclination—and we fear a growing practice—on the part of some nurserymen to yield to the avarice of certain types of private gardeners who, in ordering nursery stock, do not demand, yet make it plain that a

COMMISSIONS TO PRIVATE GARDENERS.

commission to them is necessary to place the order which they control. Are we not straining a point in the courtesies of the case when we call this a commission? If we boldly designate it a tip, or even a bribe would we not be nearer the truth? It is possible that the private gardener may have an agreement with his employer which permits him to act as buyer with the privilege of securing commissions from the sellers when possible; that is a sort of private perquisite. On the face of it however, this kind of agreement is not likely to occur frequently for it does not require an extraordinarily astute employer to surmise that he himself would, in the long run, pay the "commission" in the purchase price of the stock.

The "tip" habit is abominably prevalent in Europe and is now about as bad in America. Not long ago the writer, probably in a streak of absent-mindedness, handed a waiter in a St. Louis restaurant a nickel for a small service rendered and was promptly reminded of the diminutive character of his contribution by the lackey shoving it back with the remark that "You had better keep that; you may need it for your street car fare." We shall soon have arrived at the time when the tip receiver shall specify the amount he is to receive!

The following is interesting as giving the supposed origin of the tip although it has no special bearing upon this discussion:

It was the custom in the old English coffee-houses to place a strong box, usually of brass, with lock and key, at the door,

with the words inscribed, "T. I. P.," meaning, "To Insure Promptness." Customers were in the habit of dropping a coin for the waiters in this box as they passed out. Such, Punch says, is the origin of "Tip."

In purchasing a bill of stock the gardener is presumably carrying out his employers orders. The time occupied by the transaction has been, or will be paid for by his employer. When the nurseryman offers the employee a commission on a bill of goods he tenders a species of bribe. The amount of the commission must be made up somewhere. It may take the form of poorer grades of stock or of advanced prices. In both cases the employer suffers primarily, but the nurseryman suffers secondarily; nor is the injury restricted to the lowering of his morals. It will in the long run react against his business. Quite apart from the moral side, which is worth considering, it is in our opinion a poor business policy and one which eventually brings discredit upon the trade.

These are the views of one who looks upon the question from the side lines as it were. We do not claim infallibility. If in this point of view we are wrong, our columns are open to those who can set us right. If we are right, can we not as nurserymen get together in a manly, straightforward way and do what we can to frown down and smother a growing and palpable evil?

It is rather a remarkable thing that, notwithstanding the duty on fruit and the difficulties of transportation, the markets of Manitoba and the Canadian Northwest are largely supplied

by the fruit growers of the Pacific Coast, more particularly Oregon and Washington.

THE CANADIAN NORTHWEST AS A FRUIT MARKET. It is true that British Columbia is an important competitor, but it is probable that the states to the south secure the

major part of the trade of this region. Recently the province of Ontario has made a definite effort to introduce its fruits in that new and rapidly developing region. An experimental shipment of fruit is reported in Bulletin 139 of the Ontario Agricultural College. This shipment included tender fruits only, such as peaches, pears, plums and grapes. The trial shipment suggested, if it did not demonstrate, the possibility that fruit of this perishable character could be placed upon the Winnipeg market in car lots at freight rates, in from six to eight days from Toronto, and that fruit carried in a refrigerator car for this length of time was safer than in a hot unventilated express car for only three days. The cost of shipping by freight is about one-third of that by express. The shippers found that their methods of grading and packing were somewhat inferior to those practiced by their competitors on the west coast, and that if the trade was to be developed more attention would be needed in this particular department.

SUPERIOR SERVICE.

D. & B. LINE STEAMERS REPRESENT THE LATEST AND BEST IN MARINE CONSTRUCTION.

Detailed description of the steamers Eastern States and Western States would be tedious. Possibly it may be abbreviated by saying that these new boats are not only the largest and latest but the best on any fresh water in the world. The finest hotel is not better in respect to furnishings. The rooms, sleeping comforts, ventilation and cuisine are altogether admirable on these truly palatial steamers.

Send a two cent stamp for illustrated booklet. Address

D. & B. STEAMBOAT CO.,
Dept. B. DETROIT, MICH.

Quiz Column.

SHRUB FOR NAME.

THE NATIONAL NURSERYMAN.

Would you please send me by return mail the name of this shrub of which I enclose a piece of a branch?

Fitchburg, Mass.

J. FULLER.

The branch you send is a small slip of the common snow berry or wax berry, one of the most familiar of old fashioned door yard shrubs. It bears the botanical name of *Symphoricarpos racemosus*. So you see that it is rather heavily handicapped and has to struggle along under an extensive name. Snowberry or Waxberry are good enough for most people. The shrub is hardy and excellent for massing and grouping.

THE TAXING OF NURSERY STOCK.

The question has come up to us of taxing nursery stock as stock in trade, such as that of a dry goods man, and we would like to know if you are taxed for nursery stock on this basis—in fact, if you are taxed at all for nursery stock. If so, will you kindly tell us how the value is ascertained, and what the rate of taxation is with you. We have always felt that nursery stock, as a growing crop, ought not to be taxed.

This is the second year that the question has come up in connection with our own nursery, and we are very anxious to know the customs in our own state, and in other states, to as how other nurserymen have been treated in this matter. I have always understood that nurserymen were not taxed for nursery stock as stock in trade, but the deputy tax commissioner of Massachusetts says that you have been.

Boston, Mass.

M. M. D.

ANSWER BY PROF. J. W. JENKS, CORNELL UNIVERSITY.

I believe that in some states growing crops are specifically exempted from taxation and possibly nursery stock in the ground would be likewise exempted.

Under other circumstances, however, nursery stock would clearly be taxable under the general property tax the same as any other property, provided the assessors wished to be particular. Standing timber on land of course adds to the value of land and is included as real estate. Speaking generally, I should suppose that growing nursery stock would be taxed as real estate in the same way if taxed at all. Probably, however, usually most assessors do not mention it at all and simply assume that it adds a certain value to the land.

It is probable that your correspondent has had the misfortune to live in the neighborhood with a particular assessor who has thought it worth while in making his returns to show the specific way in which he got the value of a piece of land, and who has, in consequence, indicated nursery stock separately.

The following states specify the status of nursery stock.

Michigan.—Nursery stock whether growing or in transit is classed as personal property.

Illinois.—Nursery stock in the hands of nurserymen whether growing or otherwise, shall be listed and assessed as merchandise.

Indiana.—As in Illinois.

Massachusetts.—Forestry trees planted for reforestation are exempt; *nursery stock not mentioned*.

The general rule seems to be that growing nursery stock is to be assessed merely as added value to real estate. Michigan, Illinois and Indiana seem to be the only exceptions.

"Nursery stock planted by owner passes with mortgage even though planted after mortgage is made. But a tenant who has planted nursery stock for purposes of trade holds his stock, it not passing under a mortgage made by the land owner." The above from Washburn "On Real Property."

H. L. CLARK, Paris, Texas. Enclosed find \$1.00 P. O. Order for which you will please credit me with subscription to THE NURSERYMAN for the year 1905. I certainly prize THE NURSERYMAN very highly.

T. J. DWYER & Co., Cornwall, N. Y. We enclose herewith our check for \$1.00 in payment of renewal of our subscription to THE NATIONAL NURSERYMAN. We could not possibly omit your valuable publication from our list. With best wishes for your success.

WESTERN ASSOCIATION OF WHOLESALE NURSERYMEN.

ALL WESTERN NURSERYMEN INVITED TO JOIN.

The semi-annual meeting of the Western Association of Wholesale Nurserymen was held at the Coates House, Kansas City, Mo., July 12, 1905. Called to order at 10 A. M. President Youngers being absent, A. J. Brown presided. Minutes of last meeting read and approved. Treasurer's report showing a balance of \$51.36 received.

Firms present.—Blair & Kaufman, J. S. Butterfield, T. E. Griesa, Holman & Bente, J. A. Lopeman, New Haven Nurseries, Marshall Bros., E. Mohler, J. W. Hill, Peters & Skinner, F. H. Stannard & Co., Stark Bros., Sherman Nursery Co., Williams & Bernardin, A. Willis, J. Wragg & Sons, Youager & Co. Committee on program, Messrs. Bernadin, Stark, Holman. Mr. Skinner moved a one day session. Carried.

Mr. Hill moved stock reports be sent out with minutes. Carried.

Hitherto it has been the policy of the Association to confine its membership to the largest growers, but a growing sentiment has existed that we should have a western organization embracing all reputable nurserymen and now for the first time, all such are invited to make application for membership.

The matter of classification was discussed and the secretary directed to send by wire to President Albertson, Charlevoix, Michigan, the following:

Resolved That this Association heartily endorse the efforts of the American Association of Nurserymen to secure a reduction of carload minimum on trees, and we urge the adoption by the Western Classification Committee of the schedule prepared by the transportation committee of said Association. Messrs. Hill, Stannard and Skinner, committee.

The program committee presented the following outline of work for the session. F. H. Stannard,—Our probable supply of stock; J. A. Lopeman,—Our new Oklahoma inspection laws; E. M. Sherman,—What I learned of interest to nurserymen at the West Baden meeting.

The presentation and consideration of these subjects interestingly consumed the balance of the time.

Adjourned to meet at same place, December 19-20, 1905.

E. J. HOLMAN, *Secretary*.

A DISTINGUISHED TREE AGENT.

It is probably not generally known that the eminent Secretary of the Treasury, Hon. Leslie M. Shaw, made his start in life as a tree agent, popularly known as a tree missionary. The writer well remembers a meeting of the Iowa Horticultural Society in 1899, when Mr. Shaw, as governor of Iowa, made an interesting address to the Society, in the course of which he credited much of his later success in life to the experience and training he had acquired in the nomadic life of a seller of nursery stock. He commended it as a most important method of acquiring a knowledge of human nature. There was no way, in his opinion, in which the peculiarities of temperament came to the surface so quickly as when the individual was approached by the sunny tempered and genial carrier of a plate book. On this occasion Governor Shaw made a point of emphasizing the factor quality as being much more important than quantity, and intimated that if there was any one thing in connection with his experience as an agent of nurserymen, which rested rather heavily upon his conscience, it was the promiscuous selling of the Ben Davis apple. He suggested that if there were one method more efficacious than another of getting even with an enemy, it would be by sending him a barrel of handsome Ben Davis in October.

J. C.

BUFFALO TO DENVER AND RETURN

\$37.25

VIA WABASH RAILROAD.

Tickets on sale August 11th, 12th, 13th, and for morning trains of August 14th. Special train for delegates open to public will leave Buffalo 8:30 P. M., August 11th. Full information and itinerary forwarded on application.

JAMES GASS,

N. Y. S. P. A.

R. F. KELLEY,

G. A. P. D.

Wabash Ticket Office, 287 Main Street, Buffalo, N. Y.

Legislation.

PARCEL POST CONSIDERATIONS—SUGGESTED BY LEGISLATIVE COMMITTEES OF NURSERYMEN, FLORISTS AND SEEDSMEN.

The following suggestions were offered to the legislative committee of the American Association of Nurserymen by interested nurserymen and include some of the points to be considered by the joint committees of the American Association of Nurserymen; the Seed Trade Association and the American Association of Florists.

Amendments proposed to postal laws to provide for:

One cent letter postage. A parcel post system equal to that of England, Germany and other foreign countries, thus permitting us to send by mail a package weighing eleven pounds or less at a reasonable rate. A foreign parcel post enabling us to make shipments of small parcels of merchandise to and from foreign countries, subject of course to usual custom house duties. The privilege of mailing catalogues and other printed matter and samples of merchandise at a bulk postage rates not exceeding eight cents per pound without the trouble of affixing postage stamps. Some better method of postal remittances which will do away with the "2 sticky stamp" nuisance.

The committee has had no time to consider these propositions and reports them for information only and without recommendation.

C. L. WATROUS,
Chairman.

ACTION OF PRESIDENT GRENNELL OF AMERICAN SEED TRADE ASSOCIATION.

At the late meeting of the American Seed Trade Association the matter of co-operating with the Nurserymen was referred to the incoming Committees but no Committee from the Nurserymen met with us. I have requested the Chairmen of Committees of Postal Laws and Regulations, Customs and Tariff and Transportation to either personally or through their Committees be represented at the meeting of the Florist's Society and there to join with a Committee of the Nurserymen and a Committee of the Florists in discussing and formulating any plan that will be of benefit to the three National Agricultural Societies.

The Chairman of our Transportation Committee is George S. Green, Chicago, chairman of Postal Laws is Charles N. Page, Des Moines, Iowa, and chairman of Customs and Tariff is Winfried Roelker, New York.

W. H. GRENNELL.

NOTE—We presume that the committee of American Association of Nurserymen will meet with the above committees and push matters as strongly as possible. President Albertson has prudently taken ample time to consider the personnel of committees with a view of securing the greatest possible efficiency.—Ed.

FEDERAL INSPECTION LAWS IMPOSSIBLE.

Chairman Watrous of the legislative committee has investigated the feasibility of a law providing for federal inspection of nursery stock, which, when so inspected might become subject to interstate commerce and not subject to further quarantine and inspection in transit from the owner in one state to the possession of the purchaser in another state. Captain Watrous has investigated the whole subject very carefully and the gist of his investigation is that all powers not expressly granted to congress are reserved to the several states and to the people. The police power has always been held to be one of the powers so reserved. Under this power the several states

pass laws protecting health, comfort, safety, and property of the citizens and included in these are the quarantine and inspection laws therefore a federal inspection and quarantine law would seem to be impracticable. The full text of the Captain's investigation will be given in the next issue of the NURSERYMAN.

INDIANA LEGISLATION.

To Brother Nurserymen—How do you like the Indiana law regulating the sale of nursery stock, that is, that it shall be unlawful to sell fruit trees representing them to be a certain kind, variety or description and thereafter deliver to purchaser fruit trees of a different kind, variety or description. The penalty or fine is from \$50.00 to \$500.00 and prosecution can be begun any time within five years.

Personally we are going to still further perfect our packing this fall so that we will pack as near true to name as possible, but with a great many recruits, or new hands in our packing, some mistakes will occur and we will certainly be up against it in that event, for our blanks, like the Rochester concerns, do not contain a substitution clause. As it is a customer can make a claim regarding a variety not being true and it will be rather expensive for us to investigate and find the true state of affairs. Also it will make difficulty in collecting as many customers will simply say they will wait to see if variety is true, etc. What say you?

SPAULDING NURSERY & ORCHARD CO.

NOTE—We have nothing to say. It is up to the nurserymen. The following from the Secretary of State for Indiana is confirmatory.—Ed.

The nurseries law passed by the 1905 session of the general assembly provides that it shall be unlawful for any person, firm or corporation, acting either as principal or agent, to sell any fruit tree or fruit trees, representing same to be of certain kind, variety or description, and thereafter to deliver to purchaser in filling such order a fruit tree or fruit trees of a different kind, variety or description. The penalty is a fine of not less than \$50.00 nor more than \$500.00. Prosecutions may be commenced at any time within five years of the delivery of such trees.

DANIEL E. STORMS,
Indianapolis, Ind. Secretary of State.

COMMENT BY ALBERTSON & HOBBS.

Our last legislature did pass a law in regard to sale and delivery of nursery stock. Literally it would seem to read that goods that might prove untrue to label from accident or any other cause would lay the nurseryman and agent both liable to very heavy penalties, but I do not think this construction was intended, or could be constitutionally made, as they cannot hold a man responsible for accident entirely beyond his control.

The law was passed to overcome the work in this state of the irresponsible dealers who have had a golden harvest selling anything that was wanted, and inducing the planters to believe they wanted many things beyond the powers of nature to produce; and filling their orders with any kind of stock they could buy the cheapest regardless of varieties, etc.

We have no fears, and as I have reported to Mr. Pitkin, and others. I do not believe the honest nurserymen doing an honorable business could be held by the law in a way that would give him any trouble.

We should have some legislation against the work of irresponsible dealers, which has brought the nursery business in such bad repute, and I do not know but that this is a subject that should be taken up by our Association, and a good strong law drafted and suggested to the different state legislators such as would compel nurserymen to use every effort possible to deliver stock true to name.

THE WHITE LEADING OF FRUIT TREES. †

I beg space in your valuable journal to say another word about the use of white lead paint on fruit trees. I began to use this treatment sixteen years since and think I was the first to practice it, but I saw it suggested in a note by Elbert S. Carman of the Rural New Yorker. He did not claim to have tried it. There would be no excuse for my writing again on this topic which has been so fully exploited, if it did not appear to me that you show some prejudice in your note in the June number of THE NURSERYMAN. You say that "the originator of the painting method hedges to the extent of saying that only pure white lead is to be used," etc. Now, Mr. Editor, I do not know just what significance you attach to the word "hedges," but if you intend to imply that I have abated one jot or tittle of my recommendation as to the use of white lead paint on certain fruit trees you are greatly mistaken. It is true that I have always advised the use of pure white lead and linseed oil (highest quality not specified by me). The reason for this is that I know a number of substances might occur in ready mixed paints which would be inimical to the tree if brought into such close contact with the bark as is furnished by a good coat of paint. I have carefully recommended just what I know to be safe and practical. Many thousands of trees have been saved from rodents and to considerable extent from borers, in case of apples, by the use of this paint as recommended by me. I have had more than 20,000 trees so treated under my personal observation and many thousands more have been treated through my recommendations and not a *single tree* has ever been lost by reason of the paint, so far as relates to those observed by me and so far as I can hear from others.

I am led to say I wish some competent person could investigate this instance you mention for I warrant you there is a slip somewhere. It will not make a particle of difference when the paint is applied if the right material is used.

The white lead paint renders it possible to save trees from rabbits and mice here in Virginia when nothing else seems to be efficient except for brief intervals.

WM. B. ALWOOD.

Charlottesville, Va.

THE FRUIT CROP.

In general it appears that apples will be a light crop. In the great fruit growing states of New York, Pennsylvania, Ohio, Arkansas, and Missouri, reports vary all the way from fair to absolute failure. It would look therefore as if the apple crop would be lighter than it has been in many years. Peaches have been a light crop in the South. In the East, New York and Connecticut both apples and peaches promise an exceptionally good crop. Cherries have been heavy. Plums are variable and pears are fair. Considerable blight has appeared in different parts of the country, which has reduced the pear crop.

The Continental Plant Company, Kittrell, N. C., have a general line of nursery stock. See their "ad" in this issue.

Write August Rölker & Sons, 31 Barclay Street, New York City, for special trade offer of nursery stocks grown by W. Fromow & Sons, Bogshot, Surrey, England.

AMERICAN POMOLOGICAL SOCIETY

MEETS AT KANSAS CITY, SEPT. 19-21—IMPORTANT ADDRESSES
—EXCURSION TO THE FRUIT REGION OF OZARKS OF
MISSOURI AND ARKANSAS.

The details of the approaching meeting of the American Pomological Society, at Kansas City, Sept. 19-21, are being rapidly completed. Two of the important subjects to be discussed are plant breeding and plant introduction. The United States Department of Agriculture is investigating by means of foreign explorers the plant wealth of regions practically unknown. Plants of much value to the economic world are being introduced. This whole subject will be discussed by the head of that division.

New varieties of fruits will be considered. The nomenclature of old varieties will be the subject of a report. The score card method of judging fruits will again be carefully revised before being passed upon by the society. Practical questions relating to orchard management will be handled by noted fruit-growers.

The Missouri and Kansas City and Frisco Railways offer a complimentary excursion to the great fruit growing region of the Ozarks.

The American Pomological Society stands not only for the improvement of American pomology, but for the elevation of the ideals of country living in the United States and Canada. State Horticultural Societies are expected to appoint delegates to attend this meeting. These delegates will be recognized on presenting proper credentials.

OFFICERS: President, J. H. Hale, South Glastonbury, Connecticut; Secretary, John Craig, Ithaca, N. Y.; Treasurer, L. R. Taft, Lansing, Michigan.

MEETING OF SOUTHERN NURSERYMEN'S ASSOCIATION.

This important organization will meet in the Monticello Hotel, Norfolk, Va., on August 16-17. The following are the principal features of the program:

President H. S. Chase will call the meeting to order at 10 o'clock, Wednesday morning, August the 16th. Amongst the short papers that will be read, to start discussion, will be the following:

"Legislation," by N. W. Hale, Knoxville, Tenn.

"Co-operation," by Orlando Harrison, Berlin Md.

"Relation between Nurseryman and Fruit Grower," by Prof. W. M. Scott, Washington, D. C.

"Stop-Back," by W. T. Hood, Richmond, Va.

"June Buds," by J. C. Wale, Winchester, Tenn.

"Transportation," by J. C. Miller, Rome, Ga.

"San José Scale," by R. I. Smith, State Entomologist of Georgia.

"Fumigation," by J. P. Phillips, State Entomologist of Virginia.

Other subjects will be discussed by J. VanLindley, Pomona, N. C., W. F. Heikes of Huntsville, Ala., and other leading Southern Nurserymen.

It is expected that the program will be made up largely of informal discussion, led by our foremost nurserymen. There will be no long dry papers. Not a dull minute. Come and see for your self and help to make it better. Lay aside all other business and appear in Norfolk, Va., August the 16th and 17th.

The secretary says:

"Any nurseryman can become a member of this Association, upon payment of the annual dues of \$2.00.

It is necessary that you send in your dues at once in order to become enrolled as a member.

It is possible that you are situated so you cannot attend this meeting. Whether you can or not, you should join us and help the cause along.

As an investment, you will find this unsurpassed. This association has already accomplished much good. With combined effort we will be able to do much more. Join us now and help.

All the leading subjects before the Southern Nurseryman to-day will come up for discussion at this meeting. Be sure you are there to hear and participate.

CHAS. T. SMITH,
Secretary-Treasurer,
Concord, Ga.

SOME OF THE RESULTS OF THREE YEARS' EXPERIMENTATION WITH CROWN GALL.

The following is a summary of the lecture given at the annual meeting of the American Association of Nurserymen at West Baden, Ind., June 15, 1905, by George G. Hedgcock, Pathologist of the U. S. Department of Agriculture:

WHAT APPLE CROWN GALL IS.

The disease ordinarily called crown gall on the roots of the apple tree is most prevalent on grafted trees at the union of the root and scion, and is more often found on the lower end of the scion. Only a small per cent. of budded trees are ordinarily diseased, but as high as 50 per cent. of some of the varieties are diseased in grafted trees. The disease is more or less prevalent in all localities, wherever the apple trees are grown from root-grafts. In the course of the investigation no nursery investigated has been found free from this disease.

FORMS OF CROWN GALL.

Apple crown gall has two forms, one of which is devoid of small roots in the region of the gall, the other has few, to many small roots arising from the gall or its vicinity. A third form now under investigation is here assumed to be a distinct disease, and consists of numerous small roots arising from a slightly thickened tap-root, in which there is no distinct gall formation. This is designated as the "Hairy Root" disease of the apple. The "Hairy Root" disease is not included in the data from which the following results were drawn. Care should be taken also not to confuse with crown gall in the nursery, two other gall diseases of the apple tree, one due to the woolly aphis, the other to the presence of very tiny worms known as nematodes in the root cells. The galls produced by these two parasites are smaller and softer than true crown gall, and are more numerous and more apt to be found on side roots. There is also a soft gall often found on apple seedling roots, and occasionally on grafted trees, which differs slightly from the harder form common on grafted trees and which may be due to a different cause.

INOCULATION EXPERIMENTS.

Careful examination for two years conducted both in the greenhouse and in the nursery give the following results from inoculations made with the common hard type of apple crown gall, devoid of "Hairy Roots." Apple seedlings grown in the greenhouse from seeds sterilized with concentrated sulphuric acid, planted in a soil which had been sterilized in a soil autoclave at a steam pressure of 15 pounds to the square inch, watered with boiled river water, were used for experimentation. Such seedlings remained free from disease throughout the experiment, both in control and in inoculated plots. A portion of these were inoculated by inserting a piece of living gall in a wound upon the root, and wrapping it with a thread, others were inoculated by mixing minced galls with the soil. Carefully selected apple seedlings from the nursery were inoculated in the same manner in both field and greenhouse. The average result of all such inoculations for two years are 10 per cent. diseased in the inoculated and 14 per cent. diseased in the control portions of the plots. No reasons for the excess in the control can be given.

Extensive inoculations of root-grafts for two years gave in 1903 an average of 44 per cent. of diseased trees in the inoculated portion, and 39 per cent. in the control parts of the plots. In 1904, with an equally large number of trees, 9 per cent. were diseased in the inoculated and 15 per cent. in the control portion of the plots. An average for the two years

gives 27 per cent. diseased in both the inoculated and the control portions. About 10,000 apple grafts were used in these experiments. No evidence can be deduced from the results that the disease is contagious, since the inoculation was thoroughly made with a large quantity of minced galls at the time of planting.

EFFECT UPON THE APPLE TREE.

It has been claimed that the disease kills the apple tree in three years in the case of young trees. An experiment with 300 trees to determine the effect of the galls on the growth of diseased trees, at the end of one year showed no difference in the appearance of the diseased from healthy trees. Of 175 diseased trees, five were dead at the end of the year; of 125 healthy trees of the same age, seven were dead. Trees grown in the nursery under the same conditions, selected from the same grade, with equally developed roots were used, the only difference being that each of the diseased trees possessed a well developed gall on the root. Outside of experiments by the Department considerable data has been collected, which indicate that the disease does not greatly shorten the life of the young tree, unless the galls completely encircle it above the root system, and in such cases that deeper planting of diseased trees will probably enable them to form a system of roots above the encircling gall and thus prolong their life. An orchard of 50 crown gall trees near Brussels, Ill., at the end of eight years contained 40 healthy vigorous trees, eight having died, and two were dying, with a root rot, which may or may not have gained entrance through the gall. No replants had been made at any time during the growth of the orchard. These are now under observation, orchards containing 14,000 crown gall trees. Experiments on the nature of the disease in 1905 include 110,000 apple root-grafts and 10,000 seedlings.

CROWN GALL OF RASPBERRY AND STONE FRUITS.

The crown gall of the peach, plum, cherry, raspberry, almond, and apricot have been proven by careful inoculation to be one and the same disease on each of these plants. It is very contagious when inoculated into wounds upon the roots of the plants. Peach and raspberry are most susceptible to inoculation from galls taken from any of these plants. On the other hand, inoculations upon the apple and pear from galls of the above plants failed, and those from galls of the apple and pear upon the raspberry and stone fruits were equally unsuccessful. The pear gall is similar to that of the apple and does not appear to be contagious from results obtained.

HOP GALL.

The crown gall of the hop is evidently caused by the presence of a slime-mould resembling *Plasmidiophora brassicae* in the tissues of the galls. The crown-gall and root-galls of the rose and grape are not certainly infectious. It is not advisable to use cuttings or off-shoots from diseased plants of the rose, raspberry or grape, owing to the presence of the disease in the tissues of these plants above the ground. A study of all these galls is in progress.

A REQUEST FOR COOPERATION.

There is a great diversity of reports as to the tendency of different varieties of apple to form crown gall when grafted. The Department is anxious to secure in the next few months as much data as possible from all parts of the United States as to the per cent. of crown gall upon common varieties of apple on both grafted and budded trees, and it is requested that leading nurserymen and fruit growers send a confidential report of such percentages to the Mississippi Valley Laboratory at St. Louis. All data which may be furnished in connection with this inquiry will be considered confidential; that is, when any publications or announcements pertaining to crown-gall are made the names of the nurserymen furnishing information will in no case be given, but each will receive a full report of the investigation when issued. Blanks for data and full directions will be furnished upon application to Geo. G. Hedgcock, at the Mississippi Valley Laboratory, St. Louis, Mo.

GRADING NURSERY STOCK.

PRESENTED BY L. A. BERCKMANS BEFORE MEETING OF AMERICAN ASSOCIATION OF NURSERYMEN, WEST BADEN, JUNE 1, 1905.

This subject is one of vital importance, and if a uniformity of grade is established it will simplify sales and prevent many misunderstandings and much unpleasant correspondence, which now are very frequent between purchaser and seller.

The cotton trade has a standard grade which is known as the Liverpool Classification," and this is understood by the trade throughout the entire universe. Grain men have also a recognized standard for grading wheat, corn, oats and other grain. But there being in the nursery business so many arbitrary grades, there is of course, no satisfactory basis for the adjustment of claims. By establishing a standard grade of nursery stock we would "know where we are at." I am satisfied that if we will establish a standard grade and calliper our sales will be increased and hastened. Owing to the many arbitrary grades now in existence it is frequently necessary to ask for samples of nursery stock before orders are placed. Many good orders are lost by the nurseryman's supply of a certain grade being exhausted; and frequently he could fill these orders at a good profit if there was an established standard of grade, but in many cases, fearing to "buy a pig in a poke" he is necessarily obliged to turn down these rush orders. A tree to be entitled to the name "first-class," must have a perfect root system, be thrifty, straight and free from disease. The proper point at which trees should be callipered must be established. Some nurserymen calliper at the junction of the bud with the stock, others three or four inches above the point where the bud was inserted. I have also known instances, when some nurserymen desiring to purchase stock, they requested the calliper to be taken twelve inches above the junction of the bud with the stock. In top-worked trees, such as Weeping Mulberry, Catalpa Bungei, Weeping Cherries, etc., the height of stem and calliper of stock should be given. Many nurserymen bud Pecans, Chestnuts, etc., from one to three feet above the ground, but do not state the height at which the buds are inserted. In quoting such stock they give the height from the ground and omit to state that the trees are top-worked, and also fail to give the growth of the bud or graft. I have frequently seen top-worked Pecans where the bud was inserted three feet above the ground, and the bud had made a growth of only two to four inches, but such trees were quoted as three to four foot trees.

June-budded Peach-trees have been the cause of many kicks. In many instances the buds are inserted anywhere from six to twelve inches above the ground but the tree is measured from the ground. All of these petty annoyances can be eliminated if we can get together and establish a uniformity of grade.

I will venture to make a few suggestions regarding the most prominent and important items. The sixteenths of an inch should apply only to seedlings and stock for grafting or lining out, such as Apples, Plums, Pears, Cherries, Roses and Shade Tree seedlings. All trees of the regular grades of nursery stock; such as budded and grafted Apples, Pears, Plums, Peaches, Cherries, Apricots and Shade Trees, for permanent planting in orchards, streets or parks should be callipered in eighths of an inch. Grafted trees should be callipered three inches above the ground. Budded trees three inches above the junction of bud and stock. This distance should be well above the swelling. It is unnecessary to have so many grades of Peaches, Apples, Pears, etc.; for example some Peaches trees are graded 7-16 to 9-16, this should be made $\frac{1}{2}$ to $\frac{5}{8}$. We see other trees graded 9-16 to 11-16, the difference between this grade and $\frac{5}{8}$ to $\frac{3}{4}$ is infinitesimal. We all know how difficult is it to get the stock graded to sixteenths, especially during the rush season. I say, Gentlemen, away with the sixteenths so far as all the regular grades of nursery stock as above mentioned are concerned. In giving the height of trees grown from cuttings, seeds, grafts or layers it should be at the ground line, but budded stock from the junction of the bud with the stock, and the bud should be inserted not more than two or three inches above the level of the land. I trust the few suggestions I have made will bear fruit. It would be well to have a committee appointed from members residing in the different sections of the country to take up this question and suggest a schedule of grade and calliper which will be accepted as the standard by the trade in general.

Fruit and Plant Notes

LEADING VARIETIES OF SWEET CHERRIES.

T. A. FARRAND, SOUTH HAVEN FRUIT EXPERIMENT STATION, MICHIGAN,
IN SPECIAL CHERRY REPORT OF AMERICAN
POMOLOGICAL SOCIETY.

Bing Originated in Oregon and introduced by Seth Lewelling of Milwaukie, Oregon. Very large; roundish heart shape; almost black; flesh firm, meaty; flavor vinous, sweet; high quality; season medium. A most promising variety. (Description made by Van Deman.)

Cleveland Tree a very strong, vigorous, spreading grower, and productive. Fruit, medium to large, form compressed slightly heart shaped; color light yellow shaded, with red on one side; flesh light, quite firm, juicy, quality fair, mid-season.

Elton Tree a good grower, but lacks productiveness here. Fruit very large, compressed elongated, heart shaped. Skin pale yellow, blushed with red, flesh light medium, firm juicy, with a sweet, rich vinous flavor, quality best, mid-season.

Kirtland's Mary Quite an old variety, which seems to be but little planted. Tree only moderately vigorous, but very productive. Fruit large, roundish, heart shaped. Skin, handsomely mottled, light and dark red, on yellow ground, light fleshed, very firm, juicy, early to mid-season, fine quality, weak point; lack of vigor.

Lambert Originated with J. H. Lambert of Portland, Oregon, on his fruit farm at Milwaukee, Oregon. Fruit large to very large, obtusely heart shaped, sutured side compressed, suture a mere line; ground color dark amber becoming covered at maturity with a beautiful dark, rich magenta, the ground color showing mottled; flesh dark, rich, firm and juicy with a sprightly flavor. Stem $1\frac{1}{2}$ inches, stout and attached in a shallow narrow cavity. Pit small.

Napoleon One of the most popular varieties for all sections. The trees are strong vigorous growers, and very productive. Fruit is of large size, handsomely mottled, light and dark, with very firm light-colored flesh, and good quality, mid-season.

Rockport Highly recommended from many sections, both east and West. Tree moderately vigorous, but productive. Fruit of large size, good quality and appearance; form, roundish, compressed, heart-shaped; skin, yellow with dark red blush; flesh, light, tender and juicy. Quality very good, early to mid-season.

Tartarian Black One of the oldest, and is at present one of the most popular market varieties in the more favorable localities. Lacks the vigor and hardiness of the Napoleon and Windsor as grown here.

Windsor Origin, Windsor, Ontario, Canada. This is one of the newest varieties that has gained a National reputation, and it is safe to say, should be included in every sweet cherry list. The trees are hardy, vigorous, and very productive. Fruit large, roundish, heart-shaped; skin, dark liver-colored; flesh, dark red, very firm, juicy, fine quality, medium late.

Wood Recommended from nearly all sections for near-by markets and home use. Tree, strong, vigorous grower, very productive. Fruit, medium to large, heart-shaped; skin, pale yellow, with pale red blush; flesh, white, very tender, juicy, with sweet, mild pleasant flavor; good quality; season early. Inclined to rot badly.

Yellow Spanish This old, well known variety does well under varied conditions, and for this reason it still holds a popular place on the lists.

TWO PROMISING NEW CHERRIES.

Dikeman Cherry (Bigarreau): Size medium, on young trees about the size of a Gov. Wood; on old trees larger. Shape, truncated heart, flattened. Color, very dark liver, nearly black. Flesh very firm; juice, purple. Skin rather tough, rarely cracks or rots. Flavor sprightly, sweet. Ripens after English Morello. Its season here in Oceana county, Michigan, is from August 1st to September 1st. Tree very thrifty, upright grower; begins fruiting young, but requires age to lay on profitable crops.

Cook's Imperial: "We would say that this cherry was originated by Mr. Steven Cook, of Benton Harbor, it being a seedling from the

Napoleon Bigarreau from one of the 500 pits of this variety of cherry that he planted in an experimental way. It resembles the Black Tartarian in shape, flavor, length of stem, and color, but is about ten days earlier in ripening, and larger." (West Michigan Nurseries, Benton Harbor, Michigan.)

DUKE CHERRIES.

One of the chief characteristics of this type of cherry is to ripen its fruit over a long season, there being but few exceptions to this rule, and it is an undesirable point commercially.

In growth of tree, they vary from decidedly upright, to a round, spreading head. Botanically, this type is classed with the sweet cherries, but in flavor the fruit is neither sweet nor sour, rather half-way between. Usually, tender, juicy, with a rich sub-acid flavor, excellent, both as a fresh fruit and for making a very choice preserve.

In point of acerage, reports would indicate, that the Dukes are far less planted than either Bigarreaux or Morellos. Cherries of this type are inclined to rot and do not bear shipping well.

The more popular market varieties for all sections are May Duke, Eugenie, Olivet, Louis Phillipi, and Magnifique. The varieties, Hortense, Choicy, Late Duke and Royal Duke are reported as shy bearers from most sections. All, or nearly all of the above varieties are at the South Haven station, and a number of others, among which is a variety, Montrueil, which has given the best satisfaction of any Duke on trial.

LEADING VARIETIES.

Carnation "As named." Origin unknown. Tree vigorous, upright, spreading grower, forming rather roundish head. Fruit, large, roundish slightly heart-shaped; stems, variable, mostly long slender; color, very dark red; flesh and juice, dark red; medium firm, juicy, with a rich sub-acid flavor, quality best; quite productive, mid-season; ripens over a long period. (This has well marked characteristics of the Morello. Secy.)

Eugenie; Tree upright, but lacks vigor, quite productive. Fruit of large size, oblate, compressed, inclining to heart shape; stem, medium, length stout; flesh and juice dark red, texture very tender and juicy, sub-acid fine. One of the earliest to ripen, lasts over a long season.

Louis Philippe From Downing. "Tree upright, spreading. Fruit, large roundish, regular stem, rather short, stout. Skin, rich dark, dark red flesh, red tender juicy sub-acid; quality very good; season, medium to late; said to be productive."

Magnifique One of the latest of any kind of cherry to ripen and valued particularly for this feature. Tree an upright spreading grower, forming a U shaped top. Very productive of fruit of large size, and good quality, but rather too light a shade of red to take well on the market; form, roundish, inclining to heart shape; flesh, pale yellow, firm, juicy, with sprightly sub-acid flavor.

May Duke This is one of the most popular of all the Dukes in all sections. The trees are decidedly upright, close vigorous growers, and very productive. It is one of the earliest to ripen, and as is the case with Eugenie, the leaves are large, long, and sometimes wholly hide the fruit, which is large, roundish, oblate, dark red; flesh and juice, red, tender, juicy, rich sub-acid; quality best; ripens over a long season.

Montrueil Belle de, Origin, France Trees were received from Stark Bros. in 1891. The variety seems to be but little known, and is worthy of a wide dissemination. It has proved to be the most productive and profitable variety of this type, on trial at trial at the South Haven Station. The trees are healthy vigorous, upright, spreading growers. Fruit, large, heart shaped; stems, long, slender; skin, dark glossy red, almost black; flesh, and juice, dark red, medium firm juice, with a rather strong sub-acid cherry flavor; quality, very good; medium late, and ripens its fruit evenly for a Duke.

Olivet; Tree a very strong, rather spreading grower, from most reports unproductive. Fruit, large, roundish oblate; stem, variable mostly short, stout; color, dark red; flesh, tender, juicy, with sprightly sub-acid flavor. Season medium late.

President Albertson attended the meeting of the Texas Nurserymen's Association at College Station, Texas, on July 25. He also met with the western classification committee at Charlevoix, Mich., earlier in the month.

PRESIDENT ALBERTSON APPOINTS COMMITTEES.

EDITOR NATIONAL NURSERYMAN.

I have decided upon appointment of the following Committees, (see editorial page) and hope that those named will all co-operate in the work of making our next meeting the grandest possible success.

I have tried not to make the appointments burdensome on any by duplicating their names on the different committees, and have brought in some new material and have as far as possible, tried to relieve some who have done so much work in the past years.

Do not think it necessary to appoint special committees to deal with the different freight classification committees, as I find the only way to handle them will be through the regular committee, giving them the power to call for any assistance they think necessary from the members in the different sections and the work to all be under the direction of the general committee.

I have not added to the Transportation Committee the names appointed by the Eastern Association, but it is my desire that they shall continue to act with our committee, and as a part of it.

E. ALBERTSON, President.

BUSINESS MOVEMENTS.

ANNOUNCEMENT.

Circumstances force us to make the following announcement to the public: We are the old original firm, and are still located, owned and operated at Waukeec, Iowa. We have no connection with any other company using the name "Wragg" and are the only company growing Wragg trees. We make this announcement to protect ourselves against a new firm of dealers who have started in Des Moines and who are advertising Wragg trees. We have been established at our present location, in Waukeec for nearly thirty years, and much as we dislike to bring this matter before the public, we are forced to send out the enclosed by reason of other parties who are advertising to be the originators of our firm's productions and are, in various ways, misleading many of our old customers. With this in view, we deem it best to let the public know the facts as they actually exist by publishing the contract which follows:

Waukeec, Iowa, June 7, 1904.

Know all men by these presents:

That M. J. Wragg has this day sold and transferred unto W. C. Wragg all his stock now owned by him in the J. Wragg & Sons Co., Nursery at Waukeec, Iowa, and in so doing, he also sells with it his good will and guarantees by the signing of this contract, that the said M. J. Wragg will not engage in the nursery business in any manner whatsoever in the vicinity of Waukeec, Iowa, either by himself or in company with others, without the written consent of the J. Wragg and Sons Nursery Co. The above stocks are transferred to the said N. C. Wragg by the said M. J. Wragg for the purpose of reimbursing the said N. C. Wragg for all claims against the said M. J. Wragg for certain equities in contracts and other profits in the business of which the said N. C. Wragg has not received his just share.

Signed this 7th day of June, 1904.

M. J. WRAGG,

In presence of

N. C. WRAGG.

Jas. R. Whinery,

W. S. Monger.

It will appear from the foregoing that on June 7, 1904, M. J. Wragg sold all his interest in the old J. Wragg & Sons Company and withdrew therefrom, and since said date, he has had no connection therewith whatsoever.

J. WRAGG & SONS CO.

UNFORTUNATE CAROLINA SHIPPERS.

Following the great loss of strawberries comes disaster in connection with cabbage. The *New York Packer* reports that over 20,000 crates of cabbage have recently been seized and condemned by the health authorities in New York. This amounts to upwards of one hundred cars of cabbage. The loss is attributed to a soft condition of the cabbage when packed and slow transportation. The New York markets have been crowded with potatoes and early vegetables. The members of the Fruit Trade Association place themselves on record to the effect that "never have so many goods been rejected as early in one season or been sold for less than freight costs."

AUGUST SPECIALTIES.

Maher & Grosh are again offering their reliable budding Knives.

West Jersey Nurseries, Bridgeton, N. J., offers special lines of apple trees.

John A. Young, of Greenboro, N. C., has a large stock of natural peach pits.

Pecans are in demand in the south. Try Griffing Bros. Co., Jacksonville, Fla.

All interested in telegraphy should consult the Morse school at Buffalo, N. Y.

The quince is going to be popular. Orange buds at John Twomey, Geneva, N. Y.

For genuine mountain natural peach pits apply to J. Van Lindley, Pomona, N. C.

Henry A. Dreer, Philadelphia, is pushing Japanese and German Irises and Peonies.

The Leedle Floral Company is carrying a large stock of roses for fall and spring delivery.

Apple seedlings and apple trees in variety and in quantity by Youngers & Co., Geneva, Neb.

W. N. Searff, of New Carlisle, Ohio, carries a full and heavy stock of small fruits, gooseberries and currants a specialty.

Continental Plant Company, Kittrell, N. C., are headquarters for strawberry plants and peach trees in million quantities.

The popularity of the Baby Rambler continues. Brown Bros., Rochester, continue to be headquarters for this valuable acquisition.

Write August Rölker & Sons, 31 Barclay Street, New York City, for special trade offer of nursery stock grown by W. Fromow & Sons, Bogshot, Surrey, England.

Americana plums are the only reliable stock for the Northern Mississippi Valley. The Jewell Nursery Company, Lake City, Minn., carry a large stock of these varieties.

THE NATIONAL NURSERYMAN is informed that the firm of J. Woodward Manning has taken in another partner—not a silent one. Miss Althea Viola Manning arrived on July 18th.

A BREEZE FROM TEXAS.

THE NATIONAL NURSERYMAN.

"The Convention number of THE NATIONAL NURSERYMAN duly received. Permit me to compliment you upon the excellent account of the Convention and to thank you for the bouquets you were kind enough to toss toward me. However, I have a kick to make.

Quoting from your write-up of the Convention 'Quietly there arose a tall, 'lean' figure, with black hair, 'salow' complexion and aquiline features of a native born Texan.' Positively I object to being referred to as *lean*. That which you mistake for leanness, is in reality an aristocratic degree of slenderness. I am six feet one and a quarter inches tall, and weigh one hundred and twelve pounds, which of itself contradicts the assertion that I am 'lean.' As a matter of fact I am a shining light of the 'Fat Mans Club.'"—STANLEY WATSON.

Mr. Watson adds many more pleasantries which lack of space unfortunately cuts out of this column.—Ed.

MR. ORLANDO HARRISON'S INVITATION.

Every member and every Nurseryman who attends the Southern Nurserymen's Association, held at Norfolk, Va., on August 16th and 17th is cordially invited to take the side-trip, and visit us at Berlin, Md., also take a trip to the Sea-Shore at Ocean City, Md. All arrangements have been made for the transportation, and comfort of the party.

ORLANDO HARRISON

The Riverside Nursery Company

CONFLUENCE, PENNA.

OFFER FOR FALL OF 1905

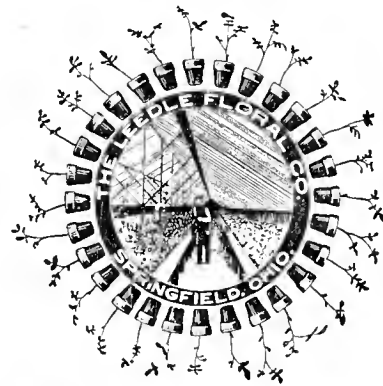
A CHOICE ASSORTMENT OF APPLE

Embracing 56 varieties, heavy on York Imperial, Ben Davis, Gano, Baldwin, Yellow Transparent, M. B. Twig, Duchess and Iowa Blush, in the $\frac{3}{4}$ th and up and $\frac{5}{8}$ th and up grades. Also a good assortment of

Peach, One yr. old Cherry, Japan Plum, and Kieffer Pears.

Special attention given to furnishing and packing for dealers.

Correspondence solicited. Write for Wholesale Price List.



H.P. **ROSES** T., R.,
H.T. Cl. etc.

ORDERS now being BOOKED

FOR YOUNG PLANTS FOR LINING OUT
TO BE SET ASIDE FOR

FALL and SPRING DELIVERY

For special prices, send want list to

THE LEEDLE FLORAL COMPANY

EXPERT GROWERS, SPRINGFIELD, O.

Willis Nurseries

OTTAWA, KANSAS.

We are pleased to announce we shall be able to supply the trade for the

Fall of 1905 and Spring of 1906

A choice lot of

Apple 2 yrs. old

In large variety and all grades.

ALSO A LARGE LOT OF PEACH AND CHERRY

ALSO A FINE LOT OF GRAPES

—ALSO—

The finest lot of FOREST SEEDLINGS we have ever had

—ALSO—

The largest lot of APPLE SEEDLINGS we have ever had

ALSO A LARGE STOCK IN

**GENERAL ASSORTMENT FRUIT and ORNAMENTAL
TREES, SMALL FRUITS, SHRUBS, ROSES, &c.**

We have a large stock and will make favorable prices.

A. WILLIS, . . . Proprietor

1,000,000 PEACH TREES

Smooth, clean, well grown two year old trees budded on seedlings grown from natural seed collected in this vicinity, which is entirely free from "Yellow" and all disease.

50,000,000 STRAWBERRY PLANTS

And all kinds nursery stock grown on virgin soil at small cost to be sold at closest prices. Send your want list for prices.

Dept. M.

CONTINENTAL PLANT CO., Kittrell, N. C.

ESTABLISHED 1875

Mt. Arbor Nurseries

E. S. WELCH, Prop. - - SHENANDOAH, IOWA.
One of the largest, best equipped and most up-to-date
nursery plants in the United States.

Large Supply for Fall 1905, Spring 1906.

APPLE
Over 100 Best Varieties.
PLUM AMERICANA
Largest Stock in the United States.
CHERRY
Leading Sour Varieties.
APPLE SEEDLINGS
Grown on New Land Free From Disease.
ROSES
Fine Lot, Hybrid Perpetual Climbing
and Ramblers.
ORNAMENTALS
Splendid Stock of Best Kinds.
**Forest and Deciduous
TREE SEEDLINGS**
One to Two Million Leading Kinds.
APPLE GRAFTS
Made To Order.

Is your name on our mailing list?

Three Wholesale Price Lists
(To the Trade only.) **Fall, Winter
and Spring.**

Wood Labels

Both Plain and Printed

For Nurserymen And Florists.

We are looking for the business of those
Exacting Buyers who demand
the best article for their purpose.

SAMPLES AND PRICES CHEERFULLY
GIVEN.

Dayton Fruit Tree Label Co.

South Canal St DAYTON, OHIO.

When writing to Advertisers mention The National Nurserymen.

Albertson & Hobbs

BRIDGEPORT, MARION CO., INDIANA

Over 300 Acres of Young Nursery Stock

Indianapolis and Plainfield Electric Cars pass our office hourly, 30 minutes
ride from Indianapolis.

A FULL LINE OF GENERAL NURSERY STOCK
FOR FALL 1905 AND SPRING 1906

APPLE, PEACH, PEAR, PLUM, CHERRY,
CAROLINA POPLAR, BOX ELDER, CAT-
ALPA, SILVER MAPLE, NORWAY AND
HARD MAPLE, AND OTHER SHADE AND
ORNAMENTAL TREES.

IN CAR-LOAD LOTS, OR ASSORTED CAR-LOADS

Also large stock of Ornamental Shrubs, Vines, Evergreens, Roses and
Small Fruits.

Apple, Pear, Plum, Cherry and other Seedlings. Forest Seedlings, etc.
Shipments from Bridgeport, Ind., Topeka, Kan., or Dansville, N. Y.

We invite your personal inspection of grounds, packing houses, stock, etc.
Packing and shipping facilities are the best. Stock stored in fall for
winter or early spring shipments.

Our SPADES are the BEST and CHEAPEST made.

EXCELSIOR (baled dry), the best packing material either for storage or
shipping.

We Hope to Have Chance to Price Your List of Wants

BERT MITCHELL,

MATHER, WIS.

—DEALER IN—

SPLAGNUM MOSS

AND ALSO

Evergreen Trees, Spruce, Tamrack and White Birch
AT LOW PRICES.

My Moss is absolutely dry, baled in burlap and in wire bales
at low prices. Don't be fooled by other dealers. Ask for prices
before placing your order elsewhere.

LENAULT, HUET & COLOMBE,

NURSERYMEN,

USSY, CALVADOS, FRANCE.

Growers and Exporters Of French Nursery Stock

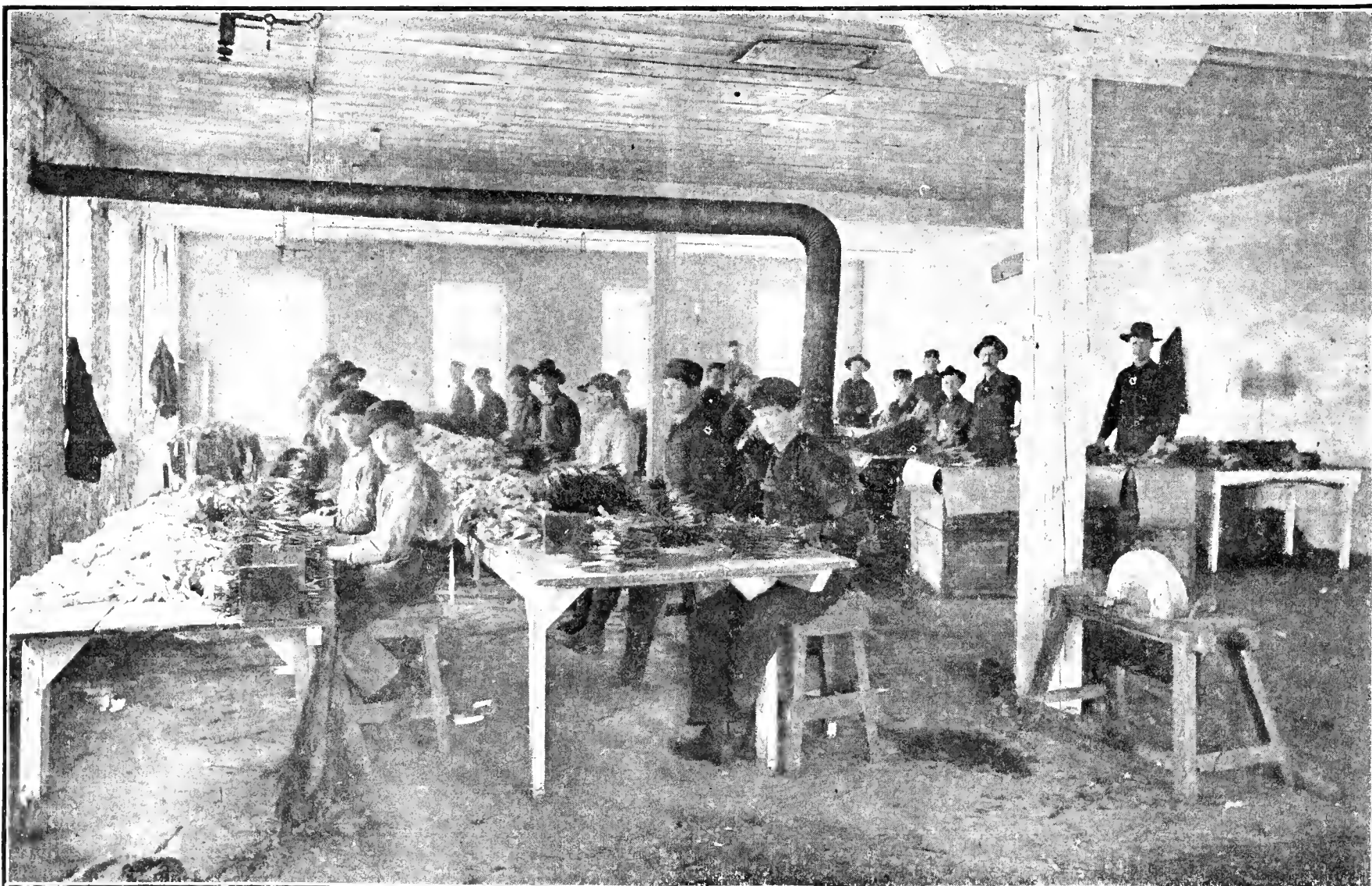
A great assortment of fruit trees such as Mahaleb, Mazzard,
Myrobolan, Pear, Apple, Quinee, Manetti, Rose, Multiflora, Forest
Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

When writing to Advertisers mention The National Nurseryman.



In the apple graft room of L. R. Taylor & Sons, Topeka, Kansas. In this room are shown the men who cut and count out the scions and who pack the root grafts ready for shipment. This is root-grafting systematised.



The making of apple grafts by L. R. Taylor & Sons, Topeka, Kansas. The grafts are carefully made and wrapped with waxed paper which is claimed to be superior to twine for tying the union. A million or more are put up this way each winter. For further particulars see page 142.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., SEPTEMBER, 1905.

No. 8.

History of the Nursery Business in Texas,

BY PROFESSOR T. V. MUNSON, DENISON, TEXAS.

In compliance with the request of the Editor of the NATIONAL NURSERYMAN for me to write a sketch of the origin and development of the nursery business in Texas, I prepared and sent to all the older nurserymen of the State the following letter:

DENISON, TEXAS.

DEAR SIR:—Being called upon by the editor of THE NATIONAL NURSERYMAN for a brief history of the beginning and development of the nursery business in Texas, and wishing to be accurate and impartial as possible, I kindly ask of you, at your earliest convenience, a brief statement of the date and place of your beginning in the nursery business; its development, character, associates in business, change of place, firm, etc., etc. Also please mention others in the state who had entered the business before you, or at about the same time, at what points.

Thanking you in advance for what you may say, I am,

Very truly yours,

T. V. MUNSON.

The clipping immediately following, taken from *The Farm and Ranch* and the responses to my letter with a few interspersed remarks by myself will constitute this history.

From *Texas Farm and Ranch* of March 15, 1890.

OLDEST NURSERY—FIRST NURSERY.

Mr. Jesse Walker moved to this state in 1836 and located in the eastern part of the Red River county. Mr. Walker returned soon afterwards to Tennessee and brought back a start of the best fruits he could procure, and in 1838 established a nursery, and from that time until 1851 did a flourishing business, supplying the country far and near with fruit trees. After 1851 he let the business go down, owing to extreme ill health of his wife. These facts I learn from a daughter and son of Mr. Walker and am quite sure are correct. For over thirty-five years I was intimately acquainted with J. Q. A. Walker, a son of Mr. Jesse Walker. Mr. J. Q. A. Walker learned the nursery business with his father and in 1862 established the "Lamar Nursery" four miles east of Paris. Dying in February 1888 the nursery went down also. In 1850 Mr. Perry H. Fleming established a nursery in the north-west part of Red River County and up to the beginning of the war did a good business. He had an orchard of forty acres in apples, ten in peaches and two in pears. Many apple trees in his old orchard, forty years old, are still doing good service. This proves Northern Texas to be well adapted to apples, provided suitable varieties are planted.

Mr. Fleming's first experience was with Northern trees that proved complete failures, while those of Southern origin

were quite successful. My only reason for writing this is that honor may be given to whom honor is due. I claim that Mr. William Watson's nursery, now twenty-one years' old, is the oldest nursery in the state. I also claim that Mr. Jesse Walker established in Red River county in 1838 the first nursery in the state. If any one can break this record I would like to hear from him.

Paris, Texas.

W. W. STELL.

VALUABLE INFORMATION FROM A VETERAN POMOLOGIST. LOWER TEXAS.

During the forties Mr. Afleck of Mississippi, had a fair tree trade in this lower portion of Texas. Some time in the early fifties he transferred his enterprise to Eastern Texas, Washington county, I believe. It was very soon demonstrated to his mind that the material of the old pomology was unsuited to the conditions of our peculiar climate and Mr. Afleck's enterprise was therefore discontinued.

None of us could say where we should find material adapted to our climatic conditions. It then became us to experiment with any material that we could obtain and especially to study the indications of our own forests and the cultures of climates similar to our own.

About 1851 Herman Voigt of this county began experiments with both Mexican and wild Texas fruits, as well as varieties from widely different regions. In 1857 I began to consult him and study his operations, which soon gave some hints of the direction in which final success might be attained.

I began the nursery in Mission valley in Victoria county, Texas, and made quite all of my experiments there. In 1859 I planted my first experimental vineyard based upon Mr. Voigt's results. We then occupied adjacent premises and freely imparted to each other all information obtained. He was in search of material from which he could successfully produce fruit in his special lines. I was in search of miscellaneous material upon which to construct a list of fruits and ornamental growth adapted to the general coast region. I started a small nursery in 1866—a scant list with scant material—and much of it of doubtful value.

About that time I learned that Captain Jones of Gonzales county was gaining some success in pear and apple culture. Also Ammon Burr was beginning on a small scale, at Port Lavaca. All of us thus engaged learned all that we could from each other, as well as from our own experiments, and freely imparted to each other all that we learned.

About 1869 William Watson had started a nursery at Brenham, in Washington county.

Captain Jones raised for sale some pear and apple trees, but never developed a general nursery and death closed his labors. Mr. Burr became discouraged at Port Lavaca, and removed to north Texas, Waco, I believe, where he could succeed with material already developed by more northern culture. In 1870 I considered my nursery business sufficient to warrant an appeal for public patronage. In 1874 I brought out my first edition of Hand-Book and Catalogue, and was then operating the only nursery in South Texas west of the Colorado River and south of latitude thirty; and my nursery was situated farther south than any other nursery in the United States at that time, while William Watson was then well under way with a thriving business in Washington county about one and a half degrees farther north, and at much greater elevation.

A railroad was built running eight miles east of me and I removed to the road in 1882 where I started a station and began a nursery there, calling the place Nursery, eleven miles north of Victoria.

Failing health drove me out of the business in 1896 when I sold to my foreman, John F. Lbyd, the nursery into est of the G. Onderdonk Company. Mr. Loyd is still continuing the business, with myself as professional corresponding secretary.

I have given an account of our *early* nursery enterprises and brought the history down to dates for which there are many living witnesses, from whom you can readily obtain the information relating to later items.

Nursery, Victoria Co., Texas.

G. ONDERDONK.

LAMAR COUNTY.

The first nursery started in Lamar county four miles east of Paris was by J. Q. A. Walker, about the year 1858, which he ran successfully about twenty years an honest man now dead. Stell & Warlick, started the second nursery, known as Home Nursery, in 187. Some two years after Dr. W. W. Stell sold out to Warlick. He then started Paris Nurseries, on a large scale, which he ran until 1891. Then he sold one-half interest to H. L. Clark, firm being known as Stell & Clark. Two years later Clark became the sole owner and has been running Paris Nurseries ever since, though on a smaller scale. This is the only nursery here.

Paris, Texas.

H. L. CLARK.

In April 1879 I visited Dr. F. L. Yoakum, in Palestine, Texas, where he had just retired from the very successful conducting of the nursery business for a good many years near that city, in connection with an extensive practice as a physician.

He was one of the most intelligent pioneer horticulturists in Texas. In answer to a letter from me to his son, B. F. Yoakham, now of New York and one of the leading railroad men of the United States, I received the following statement:

MY DEAR SIR:—I am in receipt of yours of December 1st concerning my father, Dr. F. L. Yoakum, who, in connection with his profession, gave a great deal of attention to the advancement of horticulture, I regret cannot give you the data you desire, further than to say that it is possibly about ten years prior to the time you refer to communicating with him at Palestine in 1879, after he had retired from business.

71 Broadway, New York.

B. T. YOAKHAM.

At this time, 1879, Mr. William Radam, was conducting quite an extensive flower and nursery business at Austin, Texas.

At this time I also visited the nursery of William Watson at Brenham, Texas, which was quite extensive—then the largest in the state. At Houston I found at this time Mrs. S. E. Byers, and Mr. A. Whitaker, each doing a thriving flower and plant business—both gone now. Mr. Henry E. Lockett was also doing a good flower and plant business at Brenham, and continued some years later.

EARLY HISTORY AT GEORGETOWN.

I commenced the nursery business at Georgetown, in 1868, have not been in any company, combine or had a partner at any time. I have carried a general nursery stock.

William Watson, at Brenham, was selling trees in spring of 1868, but was not growing anything. I went there at that time to get some ideas but found nothing.

Ramsey of Burnett county started about that time or in 1869. He can speak for himself. That is all I know of the nursery business in the sixties.

Georgetown, Texas.

J. M. SHELL.

THE BONHAM-NURSERIES.

Bonham Nurseries were established in the year 1869 by T. B. Stimpson, of Bonham, Texas. In the year 1872 E. H. Adams purchased a half interest, and the firm name was then Stimpson & Adams. The partnership thus formed continued until the year 1876 when J. C. Adams, a son of E. H. Adams was admitted to the firm, and the style was then Stimpson, Adams & Son. In 1878 E. W. Adams, a son of E. H. Adams bought out T. B. Stimpson, who retired to the farm, and the firm name thereafter was E. H. Adams & Son. In the year 1892 E. W. Adams retired from the business to deal in cattle. In 1895 B. L. Adams, youngest son of E. H. Adams became connected with the business, and at the death of E. H. Adams, in 1899 became sole owner, and still continues as such.

The business has gradually increased, and is larger now than ever before. A general line of stock is grown for the retail trade.

Bonham.

B. L. ADAMS.

THE WORK OF FORMER PRESIDENT KIRKPATRICK.

In response to your kind inquiry concerning my horticultural work, I beg to say I began the propagation of trees in 1872, near Whites Grove, Collin county, Texas. In 1874 I established the McKinney Nurseries, at Whites Grove, Texas. In 1884, I moved my nurseries to McKinney, Texas, where the business was conducted until January 1, 1900, when I organized the Texas Nursery Company, which is continued until the present and located at McKinney, Texas, Sherman, Texas and Durant, Indian Territory.

I planted my first orchard in Texas in 1855, at the age of ten years. Mr. Oliver Bush on Rowlett Creek, Collin county, Texas, imported and propagated the first budded fruit in Collin county in 1866. Mr. M. W. Wilmeth, near McKinney, Texas, established the first nursery in Collin county in 1868.

McKinney, Texas.

E. W. KIRKPATRICK.

I beg to say that I began to propagate trees for my own use in 1860, in a small way, but did not sell any nursery stock until 1874.

From that year up to the present time I have been in the business with variable results. I have never changed my

place, but still live near Frelsburg, where my grandparents settled in 1833.

Mr. Finney and Dr. Gregory started their nurseries in this county near Alleyton, Texas, about the same time I did and both have been dead for a number of years and their nurseries are abandoned. Mr. William Watson of Brenham, and Mr. G. Onderdonk, of Nursery, I think, entered the nursery business some years before I did.

Frelsburg, Texas.

J. F. LEYENDECKER.

My father planted his first considerable patch of peach seed, about twenty-five bushels, in the fall of '74. The only nursery we knew in Texas at that time was William Watson's at Brenham. J. M. Shell at Georgetown commenced in the business, I presume, at the same time we did. About 1878 my father had all business done under the name of A. M. Ramsey & Son and this was continued until after we moved to Austin in the spring of '94. My father died on the 30th of December, '95, leaving the nursery in my name.

I do not believe I can give you any more information about other firms that you do not already know.

Austin, Texas.

F. T. RAMSEY.

SHERMAN NURSERIES.

The Sherman Commercial Nurseries and Orchards Company at Sherman, Texas, was established in 1874 by A. W. Kerr at McKinney, Texas, under the name of the Collin Nursery, and soon after was changed to the Commercial Nursery, A. W. and John S. Kerr, Proprietors. In 1884 land was purchased at Sherman, Texas, and the business moved there under the name of the Sherman Commercial Nurseries. In 1889, the entire business was assumed by John S. Kerr, A. W. Kerr retiring. In 1905 the business is being incorporated under the name of the Commercial Nursery & Orchard Co., a number of the principal operatives taking stock with the original proprietor.

These nurseries have grown extensive test orchards and propagated leading varieties of standard fruits and ornamentals suited to the Southwest and have been in the fore-front as it were, in the march of horticultural progress that has characterized their section. A system of selling through agents, for whose acts these nurseries have held themselves responsible, has proven quite a successful feature, besides a good catalogue and wholesale trade has been enjoyed. The capital stock and surplus of the company is \$35,000. The company has extensive orchards in the Red River Fruit Belt, near Pottsboro, besides orchard interests in the Peach Belt of Eastern Texas.

TRANSPORTATION COMMITTEE'S WORK.

IMPORTANT CONCESSIONS GAINED.

CHAIRMAN REED'S REPORT.

Your humble servant having been appointed Chairman of the Transportation Committee attended the meeting of the Western Classification Committee at Charlevoix, Michigan, July 13th to 18th accompanied by our president Mr. Albertson. The attendance at this meeting was the largest in the history of the Western Committee; there being present from seventy-five to one hundred representatives of the different lines of business, each asking for recognition in behalf of their own claims.

We found the committee a very pleasant and agreeable

class of gentlemen to deal with. They seemed to be willing to give us all the time and attention we asked for and were very courteous in their treatment. Mr. Albertson having taken samples with him of peach seed, seedlings, scions and waste excelsior we were able to explain to them exactly what we wanted and what these products were.

We are glad to report that they have given us the 16,000 minimum on cars thirty-six feet, six inches and under; 20,000 minimum on cars over thirty-six feet six inches and 24,000 minimum on cars forty-five feet six inches and over. This change will make the classification in cars thirty-six feet six inches and under, take 16,000 minimum in both Western and Officials territories; also in cars forty feet take 20,000 minimum in both territories in sizes between thirty-six and forty feet. There will be some variations in the two territories. In cars over forty feet there will also be more or less variations, but we think by having same minimum in the two sizes of cars that are used more than any other sizes by the nurserymen, it will do away with a great many mistakes and errors in billing from one territory to the other.

In regard to waste excelsior, they have granted us a sawdust rating on same, which will be third class in less than car loads and class E. in car loads when shipped in bales. There have been quite a number of other changes, such as the elimination of grape vines, osage plants, seedlings, etc., which will hereafter be classed as nursery stock.

We cannot give the report in full at the present writing. When we receive a printed report from the committee all the items will be included, and this will be sent out in due time as soon as it is made up. We think now that by following the matter up closely that we can probably get all that we have asked for and some other things that are also necessary. There are several other matters that needed attention, but were over-looked in making up the list. This work of course has been entirely new to the writer and as Mr. Albertson had the lines all in his hands before, it was necessary for him to complete the work that had been started and I have much pleasure in saying that to him belongs the credit for what we have gained.

Any suggestion along this line of transportation work will be gladly received from any members of the Association at any time, as it is only by the support of the membership that we are able to do the most good.

CHARLEVOIX AS A MEETING PLACE.

We found Charlevoix an ideal place for a convention. The hotel is situated on the Lake Front with the Bay on one side. It is quite a large hotel, accommodating about seven hundred people having also about thirty acres of lawn, which is laid off most attractively. It would make an ideal place to hold Nurserymen's Convention at some time in the future, being easy of access of Chicago by boat, also by rail, or by boat from the East.

This hotel is controlled by the railroad and they assure us they would make a very favorable rate for the convention, as at that time of the year their patronage is rather light.

There are plenty of small lakes and resorts in the immediate vicinity for boating, fishing and all other pleasures, which makes it altogether a very pleasant place to pass a vacation.

Vincennes, Indiana.

W. C. REED,

Chairman Transportation Committee.

LEGISLATION.

FEDERAL INSPECTION LAWS—AN INQUIRY.

At the West Baden meeting, the Association, by resolution imposed a duty upon the new committee on legislation. The resolution directed the committee to inquire under the guidance of the best legal advice obtainable, whether or not, under the law as declared by the United States Supreme Court, it is advisable for the legislative committee to attempt to obtain from Congress a law providing for federal inspection of nursery stock; and that when so inspected it might become a subject of interstate commerce and not subject to further quarantine and inspection in transit from the owner in one state to the possession of the purchaser in another state. It was thought that it might lie within the power of Congress to so ascertain the condition of nursery stock that it could enact with authority that when found to be apparently free from objection, it might be free to pass in interstate commerce for the owner in one state to the purchaser in another.

The new committee, not having been named, President Albertson has asked me to undertake the inquiry; and here is the result.

The United States Constitution confers upon Congress, in its broadest terms, the right to make rules and regulations affecting commerce between states, with foreign nations and with the Indian tribes. And this power cannot be in any wise adribged by any state enactment. In another section, the Constitution provides that all powers not expressly granted to Congress are reserved to the several states and to the people. The police power has always been held to be one of the powers so reserved. Under this power states pass laws protecting the health, the comfort, the safety and the lives of citizens and for the protection of their property.

Quarantine and inspection laws affecting persons, animals and goods coming from other states or countries are among the means used to secure this reasonable protection and reach to the boundaries of the state. Under such laws goods may be detained, inspected, funigated, denied admittance or even destroyed if deemed necessary. Congress, under its power to regulate commerce, may say what *may* not pass in interstate commerce out of a state, but cannot say what *may* pass into a state unless it be of a character so that of itself it is not dangerous to the people or the property of the state. If goods, when about to enter a state, are in such condition, from disease, infestation or other contamination that they are dangerous to the health or the property of the citizens of the state they are no longer fit subjects of commerce and are not protected by congressional regulations but are subject to be regulated by the state under its police powers. *"And here is the limit between the sovereign power of the state and the federal power: that which does not properly belong to commerce is within the jurisdiction of the police powers of the state and that which does belong to commerce is within the jurisdiction of the United States."*

The Supreme Court has held that goods may pass in interstate commerce within a state to their destination and be free from inspection or seizure until they have been sold within the state; but they must be merchantable, that is, of such character as not of themselves to be dangerous to either the people or their property. A barrel of whisky may pass within a prohibition state and be protected in the hands of the importer and until he sells it, for in its original condition a barrel of whisky makes no man drunk, neither does it contaminate any man's goods. A bale of rags from a small pox hospital would undoubtedly fall within the other—the unprivileged class—and might be inspected, purified if possible, or destroyed at the border of the state under laws passed in pursuance of its police powers. Nursery stock, dangerously infested or diseased, so as to be dangerous to the orchards and vineyards of the state would undoubtedly be subject to the same treatment.

It would doubtless be within the power of Congress to pass an act prohibiting the importation from foreign countries of any nursery stock which has not been properly inspected and certified, or the passage of such property out of any state into interstate or foreign commerce but it cannot, by inspecting and ascertaining the *probable* safe condition of goods, protect such goods across the borders of and into any state, against the wishes of the people of that

state duly expressed in a reasonable legislative enactment. If the state laws are of such character that they attempt to regulate or hamper interstate commerce unreasonably, they are subject to be overthrown by a Supreme Court decision. A law of Missouri providing that no cattle from certain regions southward should come within the state during several months of each year was held to be an unreasonable regulation of interstate commerce and overthrown, but the court expressly said that if the law had been an inspection law and cattle found to be diseased had been excluded while sound ones were suffered to proceed, it would have been undoubtedly constitutional and valid. 95 40

Congress placed a section in an internal revenue law providing that naptha mixed with coal-oil or coal-oil inflammable at a temperature below a certain degree, should not be sold in any state. The Supreme Court said that this, although a reasonable protection of life and property, is no more than a police regulation and as such belongs to the legislatures of the states. The federal enactment was declared unconstitutional.

To reach the conclusions briefly set down here I have read a great many decisions, running through numerous volumes of Supreme Court reports and have taken the best legal advice available. Some things anxiously sought have not been found. Other things not desired, have persistently appeared. But the full truth as I have found it, I have written down. I have not quoted the names of cases with the volume and page because this statement is not for lawyers but for plain people but if anyone desires to ask any questions I shall be more than glad to quote the authorities from which everything therein stated has been derived.

If we could have secured rigid federal inspection at first and so prevented the fear of nursery stock in interstate commerce, it may reasonably be supposed that the most oppressive state legislation, born of that fear, might not have been enacted.

It is too late. No federal statute can touch those state laws now.

C. L. WATROUS.

PEACH SHIPMENTS.

The week ending July 22 marked the heaviest receipts of peaches from the Texas region in the Chicago markets on record. On Monday, no less than 121 cars of peaches were received in Chicago. The market was badly shaken though not completely demoralized. The end of July practically saw the end of the Texas shipments. These were followed by heavy consignments from Arkansas and Oklahoma. It looks, at the present time, as if the public would have an opportunity of satisfying its appetite before the New York and New England peaches find their way into the market.

WHITE-LEADING TREES.

Our readers will remember that Mr. Alwood reported in the last issue of the NURSERYMAN, strongly in favor of the practice of white-leading the stems of fruit trees as a preventative of borers. In the issue of July 15 of the *Rural New-Yorker* Professor Britton of Connecticut makes a very adverse statement regarding the influence of white lead and oil on trees. Lead such as is ordinarily procurable from dealers was used mixed with the commercial grade of linseed oil. This paint was applied to the stems of one hundred and twenty-two apple trees and five pear trees. The trees varied in age from two to twelve years. Out of the hundred and twenty-two apple trees ninety-six died within a year while the remainder are unthrifty. This experience suggests that the white-leading of trees for the prevention of borers is a practice that is worth trying on a small scale before indulging in extensively.

BEAN RUST IN NEW YORK.

Bean growers in New York State have been considerably worried by the excessive amount of rust (anthraenose) which appeared during July and continued more or less during August. This fungous disease is much encouraged by humid atmospheric conditions and high temperatures. It may be prevented by spraying and it is altogether likely that many of the best bean growers will prepare to spray thoroughly next season.

WANTED BACK NUMBERS OF NATIONAL NURSERYMAN.

A subscriber wishes to complete his file of the NATIONAL NURSERYMAN and would like the following numbers.

1897, Vol. 5, Nos. 1, 2, 4, 5, 9, 10.

1898, Vol. 6, No. 8 for September.

1901, Vol. 9, No. 7 for July.

1902, Vol. 10, No. 3 for March.

1903, Vol. 11, No. 10 for October.

Address: "Missing Numbers,"

NATIONAL NURSERYMAN,

Ithaca, N. Y.

APPLE BLIGHT.

A DANGEROUS DISEASE.

This is an old enemy of the apple. It is peculiar to America and in Europe is called "The American Apple Blight." There is no part of the country fully exempt although it may be regarded as the special scourge of the middle west. In all these regions where the growing season is short and the rate of growth rapid, there "apple blight," "fire blight," "twig blight," as it is variously designated, flourishes. The general appearance of the tree when affected by this disease is too well known to need description. At the present time many orchards in the middle west look as if they had been scorched by fire. The tips of the branches have withered and turned brown. Not only are the twigs attacked but the blossoms in severe cases are also injured.

There appear to be several types of the disease. On some varieties like the Greening for instance, it is largely confined to the twigs and spurs. On others it attacks the bark of the main branches and sometimes of the stem. In cases of this kind the entrance is made through the tufts of leaves produced by little spurs. When the spur type of blight occurs it is not at all unlikely that it may be the cause of so called "body and branch cankers."

One of the characteristics of the disease is the rapidity with which it works. Sometimes it would appear that trees are stricken over night, hence the name fire blight.

CAUSE.

Many years ago Professor Burrill of Illinois discovered that this was due to a member of the great group of bacteria, some of which are useful but many injurious. This bacterium propagates and lives in the sap of the tree. It is possible that it may permeate the entire wood of the tree. This question, however, is not fully settled. Certain it is that the tree which grows most rapidly is, as a rule, the one most viciously attacked. Slow-growing varieties are more exempt than those of a very rapid growth. It thus appears that orchards under high cultivation, making rapid growth, are subject to the disease to a greater extent than those in sod, or under poor systems of tillage.

HOW IT SPREADS.

Germ diseases are often carried by insects and this has proved to be no exception to that rule. Insects may transport the germ from tree to tree in visiting blossoms and are probably responsible in a large measure for the type of disease which destroys the blossom and young fruit.

REMEDY.

The bacterial forms of disease attacking plants are the most difficult to control. Once in the tissues of the host external applications are of practically no avail. The disease, as stated above, works most rapidly during the growing period. At this time it is next to impossible to keep all parts of the tree protected with any fungicidal preparation because the shoots are pushing out from day to day.

The one preventive which has been recommended and is being used is that embodied in what we might call good, sanitary measures. The diseased parts should be cut off, removed and burned without delay. Some growers are of the opinion that this does very little good, but at any rate it seems to be the most reasonable and sensible thing to do. The more disease germs are about the more likely a given malady will spread, so it should be with apple blight. We have neglected thus far to say that this disease is, if not identical, so closely allied to pear blight that they are indistinguishable except perhaps to the mycologist. No one should be so negligent or careless as to leave large blighted branches in the orchard and trees that are severely affected should be removed root and branch.

J. C.

Note and Comment.

THE MANUFACTURE OF CIDER.

It is a curious thing that commercial orcharding for the specific purpose of growing apples to eat is a comparatively recent industry. While apples have been grown for ages and in considerable quantities in various parts of the world, yet so far as we can learn from pomological history, the first object of the grower was to get enough fruit to make cider or vinegar, and we learn from early New England records that some of the Massachusetts villages produced many hundreds of hogsheads of cider. In those days cider making was a part of the economy of every household. In these days cider making is a specialized industry, and is a trade process. It is made in a cider factory, and, except in the older portions of New England, the cider press is an unknown device around the farm-house.

The manufacture of cider is receiving considerable attention at the hands of the Bureau of Chemistry of the Department of Agriculture at Washington, and some efforts are now being made, whereby pure cider cultures are prepared and distributed to those who are in the business. This is in line with the work of the viticultural department, where pure cultures of wine musts are developed. This is practically what the dairy divisions of the experimental stations are doing, in the preparation of the various agents which bring special flavors to butter and cheese. There is unquestionably an opening for good brands of cider, and the principal point of interest from the consumer's standpoint, lies in the ease with which he can secure specific and uniform types. It is hoped that this initial work of the Department at Washington will result in permanently improving the cider industry of the country.

PRESIDENT ALBERTSON IN TEXAS.

Since the West Baden meeting our new president has been moving at a lively pace. He attended the meeting of the Western Freight Classification Committee in Michigan, then made a tour of Texas in the interests of the association in general and the 1906 meeting in particular. Of this he writes that "My trip to Texas was most enjoyable and our friends in that section appear to be getting their arrangements for the next meeting well under way. The various committees appointed will undoubtedly handle things in first rate shape and I am looking forward to a successful meeting and an enjoyable time."

Following the Texas trip, and after a few days at home, Mr. Albertson attended the meeting of the Southern Nurserymen's Association at Norfolk, Va. A report of this meeting appears in another column.

Maryland supplied New York with peaches during the fore part of August. The crop was of fair quality and sufficient to meet the demands of the trade.

Duchess apples from Western New York began to find their way into market during the first week of August. They sold in Buffalo at from twenty-five to thirty-five cents per third bushel peach basket. The Duchess is growing in popularity in Niagara County.

Grape rot of the Downy mildew type has been a destructive agent in the Michigan vineyards. Black rot has done more damage in New York than the mildew. Vineyards on Seneca and Keuka Lakes have suffered heavily.

One of the most vicious acts we have ever heard of was the placing in the nursery of Mr. J. Woodward Manning, of Reading, Massachusetts, a tomato can containing gipsy moths. This was done by some malicious individual for the set purpose of injuring Mr. Manning by destroying his stock. A reward has been offered for the detection of the contemptable scoundrel.

—Enclosed find one dollar for which please renew my subscription to NATIONAL NURSERYMEN. Your paper is indispensable to the nurseryman.
M. J. GRAHAM.

—The NATIONAL NURSERYMAN is a valuable paper, enclosed please find \$1.00. Yours for success.
L. J. REDDING.

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PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

Secretary Seager is to be congratulated on the promptness with which he has presented the members of the American Association of Nurserymen with the printed proceedings of the thirtieth annual convention. The

THE REPORT FOR 1905

report forms a modest volume of 134 pages. It has been well edited and is printed in good form. We are certain that many members will appreciate the early appearance of the Proceedings, for the annual meeting was characterized by the presentation of a large number of thoughtful addresses.

THE NATIONAL NURSERYMAN has already quoted some of these addresses and mentioned others. Among those not mentioned which we would specially commend to the reader are "Winter Storage of Nursery Stock" by Madison Cooper, Watertown, N. Y. "The Fruit Exhibit at The World's Fair" by W. P. Stark, Louisiana, Mo., "The Evolution of Importing" by J. McHutchinson, New York, "The Grading of Nursery Stock" by L. A. Berckmans, Augusta, Ga., "The New Horticulture" by H. M. Stringfellow, Lampasas, Tex. The men who wrote these papers put much time and research on their preparation. The papers will richly reward reading and study.

There is no doubt that the crop of winter apples in Western New York will fall far short of the returns for 1904. The fact is the big orchards are not yielding. There are very few

A SHORT CROP OF APPLES IN WESTERN NEW YORK

of the one thousand barrels and up orchards in business this season. It is true that here and there one finds exceptions but there are rare. The crop in Western New York will be gathered from productive corners here and there in the large orchards, but mainly from the small homestead orchards in protected positions and under good tillage. There will be a good many twenty ounce apples of medium quality, a larger proportion of poor ones and comparatively few first class. Baldwins are away below par in quantity and quality. Greenings are generally of poor quality. Roxbury Russetts are in greater quantity and better quality. Kings are not in evidence to any extent while Spy is found occasionally.

Fruit growers have not sprayed as thoroughly as usual this year. The low prices of last year, the increased cost of the apple barrel, but more than all the failure of the fruit to set, together with wet weather in spring caused them to relax their vigilance, with the result that much of the fruit is scabby and will grade low.

The apples for the world's markets will not be furnished by Western New York this year, neither will the Ben Davis of Missouri and Arkansas show its ruddy countenance in the great fruit clearing houses.

There are many differing notions about the scope and function of a trade journal. Our idea is that a trade journal can be but one thing and that is a sheet for the benefit of the

THE PROVINCE AND FUNCTION OF A TRADE JOURNAL

men who are growers or dealers in nursery stock. Such a paper cannot "run with the hare and hunt with the hounds." It cannot serve two masters—the planter and the grower. The business of the planter is either to ornament his place, increase its value and

minister to his æsthetic desires, or to set trees for the purpose of selling the crops they produce. It is as much his business to purchase the best stock at the lowest price, as it is the business of the nurseryman to sell stock at the highest price obtainable. From the business standpoint their efforts are therefore somewhat opposed to each other although in the final analysis they are laboring for the same end ultimately.

We have scores of farm journals, many of them ably edited. We have a large number of gardening periodicals, some of them giving us fresh, up-to-date material in each issue, while others are collections of despatches, clipped from daily papers, displayed beneath startling headings. This latter type represents the newspaper style—a system of retailing alleged facts or occurrences pertaining to horticulture gathered from all parts of the world. Some people like the scrap book periodical, others prefer matter of a more original and substantial character.

This is an age of specialization. No journal can cater to the pomological interests of the country and meet at the same time the needs of the business man in fruit growing—the nurseryman. When a journal enters the field of pomology it essays the scientific aspects, for pomology, represents the technical phases. Some nurserymen are pomologists, but first and foremost they are business men.

Without casting reflections or asking for comparisons we wish to state that this journal is for the nurseryman. The interests involved are sufficiently great and important to support a journal, published exclusively for the trade. We are endeavoring to meet the needs of the tree and ornamental plant growers and we feel that our efforts are being appreciated. We have been requested to make this statement regarding the platform and scope of the NATIONAL NURSERYMAN; but after all we might have saved space by saying that its aim is now what it was at the first, namely to conserve the nursery interests of the country and to advance the calling of the nurseryman.

We would like to call attention to the excellent and unremitting efforts of the editor of our contemporary—*Arboriculture*—in behalf of the forest interests of this country.

**MISSIONARY
WORK IN
ARBORICULTURE** Mr. John P. Brown, of Connersville, Ind. has, for many years identified himself with sylviculture throughout the United States in general but more particularly in the prairie states of the middle west. For years Mr. Brown has been waging a campaign in behalf of rational forest legislation and reasonable efforts leading to the reforestation of the rougher lands adjoining the water courses in these great middle States.

Among the trees that Mr. Brown has most warmly advocated and championed is the Hardy Catalpa. As set forth in a previous issue of this journal, there are many people who are not aware that two forms of the catalpa—native to southern Indiana and adjoining states—exist. One of them is comparatively valueless; the other exceedingly valuable. In order to stimulate the cultivation and planting of the best form, Mr. Brown has collected seed and grown seedlings. Much of the seed and many of the seedlings have been distributed gratuitously. Unfortunately, Mr. Brown is not a moneyed man and is unable to continue the work along this

line *pro bono publico*. There are many nurserymen who wish to grow the true Hardy Catalpa. Those who would obtain seed of the best type should write Mr. Brown. We have no hesitation in commending his efforts and urge nurserymen to co-operate with him in furthering his useful endeavors.

There is a good deal of complaint about the business side of the nursery industry. Growers are crying out that it is all work and no profit, that on account of the invasion of the business by jobbers, commission men, departmental stores, and the like, the profits of the legitimate grower are seriously lessened, and further that the outlook is most unpromising. It is claimed that firms which have for many years been regarded as reliable and conservative are being seriously crowded and handicapped by younger, more aggressive, and less scrupulous competitors. Moreover, that many of these competitors are not true nurserymen in the proper sense of the word, but are more or less transients in the business, remaining it in long enough in a single locality to secure the cream of the profits, injure the prestige of the business, when they move on or move out into another kind of business.

The more or less well established system of rebates and bonuses which prevail in connection with the business of departmental stores, the letting of contracts with stewards of private estates, all tend to unsettle if not demoralize the stability of the business.

What the remedy is, no one seems to be able to suggest. Combinations and trusts are talked of, but they are more difficult of organization and management in the case of persons who deal with products whose growth is governed by natural laws, than by those which are developed more or less automatically by mechanical means. It was thought that this subject would be discussed at the recent convention, that some feasible scheme might be developed by which nurserymen could at least secure a modicum of protection, but nothing of the kind occurred. The fact of the matter is that nurserymen are, as a rule, individualistic. They feel like disposing of the stock they grow to whom and at such price as pleases them. Understandings don't hold and combinations are difficult to effect. Growers should look far enough ahead however to realize that a competence or even a livelihood is not to be secured unless "living" prices are maintained.

There came to our desk recently a prospectus of the work of the Ottawa Horticultural Society for 1905, which proves so suggestive and interesting that we cannot refrain from offering our readers a sketch of the work of this successful horticultural organization. The society has been in operation some twelve years, and it has continued to grow in activity and influence since its inception. The management rests with a board of directors consisting of the president and nine directors elected annually. It holds periodical meetings for the discussion of horticultural topics, exhibitions in which members compete for prizes in flowers, vegetables, and fruits, and the giving formal lectures by men prominent in the horticultural world.

ENCOURAGE LOCAL HORTICULTURAL SOCIETIES

One of the important and very attractive features of the work of this society is the distribution annually, of new and promising plants, or of worthy old but little known plants. To illustrate the scope of the distributing work of the society we call attention to the fact that a member can make a choice of any two groups of eleven lots of flowers and bulbs, or he can secure the *Canadian Horticulturist* for one year, with one tree of a desirable variety of plum, or one vine of a valuable variety of grape. In addition to these privileges the member can compete, without extra fee, for any of the prizes offered by the society and can secure occasional bulletins and pamphlets issued under direction of the organization.

This is a remarkable opportunity for anyone interested in fruit growing. All this is possible through the policy of the provincial government of Ontario, which under certain conditions offers to societies of this type a maximum sum of \$350, for the purpose of supporting and pushing the work in which they are interested.

In looking over the various groups of plants offered we find roses, bulbs, perennials, shrubs, house plants, and orchard fruits.

It is interesting to observe that individual members offer prizes for the accomplishment of special objects, as the improvement of a particular school-ground, the exploiting of a special type of plant or the increasing of the interest of children in school gardens. The work of this society is so admirable that no excuse is offered for drawing attention at some length to it. It is true that very few organizations in this country are able to secure governmental support. Yet, in our opinion, there is no reason why village improvement societies should not work along the same lines, and although they may be unable to offer as extended a list of prizes, or work on such an elaborate scale, yet with the application of a reasonable amount of zeal, and the effacement of selfishness on the part of members, vast good can be accomplished. To those who would like to obtain more specific information regarding the work of the society referred to above, we would suggest addressing the Secretary-Treasurer Mr. J. F. Watson, Experimental Farm, Ottawa, Canada.

THE WEST VIRGINIA NURSERYMAN'S ASSOCIATION.

A meeting of the West Virginia Nurserymen was held at Parkersburg, West Virginia, July 29. W. A. Gold, Mason City, West Virginia, was elected president and R. R. Harris, Harrisville, secretary and treasurer. The next meeting will be held at Clarksburg, West Virginia, January 9th, 1906.

We hope by this organization to be able to meet some of the local issues.

Harrisville, W. Va.

R. R. HARRIS.

WHITE FLESH PEACHES.

"The Peach Grower and Fruit Culturist" is responsible for the statement that the white flesh peach is superseding the yellow flesh varieties in the South. It is stated that large plantings in the South are now being made of the white flesh varieties. Samples of this type are the Belle of Georgia, White Cling, Champion, Waddell and Carmen. White Cling is said to be a large and handsome variety, ripening in September in the northern part of Georgia.

It is estimated that almost 3,000,000 barrels of apples were held in cold storage in the United States this last year.

Oregon apple growers are congratulating themselves on the high prices lately secured for Hood River Newtown Pippins in the London market. These brought \$5.43 per box, which means that they sold the apples at seven cents apiece.

ONE OF L. R. TAYLOR & SON'S PROPAGATING SPECIALTIES.

This frontispiece illustrates the wrapping of grafts with Waxed Paper at L. R. Taylor & Sons, Topeka, Kansas. This firm claims to make from 1,000,000 to 2,000,000 Paper Wrapped grafts for the trade and their own planting each winter, and have evidently got paper wrapping down to a science. It is claimed by Messrs. Taylor and others that grafts wrapped with waxed paper are superior to those wrapped with string for the reason that they are more nearly air tight. This wrapping keeps out germs, dirt and water from the splice and allows root and scion to callous and unite naturally. It is also asserted that these grafts do not sprout at the collar, which seems reasonable. Again the paper does not cut the wood, as is the case with string, thus discouraging and perhaps preventing root gall in considerable degree.

THE EXTENT OF THE NURSERY.

The Nurseries of L. R. Taylor & Sons of Topeka, Kansas, comprise some 500 acres, of which the bulk is closely planted to nursery stock. They make a specialty of growing Apple, Cherry, Peach and Plum trees, Apple and Pear seedlings for the wholesale trade, and during the winter their grafting cellars are full of men putting up grafts both for their own plant and the trade in general.

Their branch nurseries at Rossville, which they recently established for the purpose of growing Apple Seedlings, comprises 160 acres. The land here is situated in the fertile valley of the Kaw river and is peculiarly adapted to growing Apple Seedlings, and they are able at this point to get plenty of new land each year for the coming crop.

Raising Apple Seedlings for the Trade is this firm's long suit. For this year's plant alone they imported from France over 3½ tons of French Crab seed, and their plant of these seed covers 150 acres.

TROUBLES OF TREE PLANTERS IN EARLY DAYS IN ILLINOIS.

The following interesting reminiscence is from the pen of Mr. T. H. Douglas of Waukegan, Illinois.

"Now that I have gone back to the dim past I will tell you of the first trees father ever had shipped to him. Late one Saturday in 1848 he was notified that the steamer had left a box of trees on the pier for him. Early the next morning (Sunday) he sent a man down for them. It was snowing heavily at the time with the prospect of a freeze up, and he wanted to have them planted at once. Finally he got three men to help him. There was only one spade in the village except what Uncle Jeremiah Porter, a former contractor in the East, controlled. Father sent one of the men to the village school-teacher to borrow from Porter but he would not let him have them to use on Sunday. Father then went to him and explained his predicament but with no better success. As he turned away he remarked to himself but out loud "what a pity such beautiful trees will all have to die though the Lord has tended to them Sundays as well as week days." and started off. He had hardly taken a step when "Uncle Jeremiah" shouted "hold on Robert, I had not looked at it in that light before. Come back and take all of the tools you want." Two of those trees are still living that I know of and I hope many others are.

NOTE—The incident related regarding the first shipment of trees to Waukegan, illustrates at least two things—the primitive condition of the country and the puritanical way of looking at Sunday and Sunday work. How times have changed! and perhaps not all for the best, because one can not help wishing that some of the good old Presbyterian notions regarding Sunday had been retained and that some of the twentieth century developments had never been born.—ED.

Doings of Societies.

THE INTERNATIONAL APPLE SHIPPERS' ASSOCIATION.

This Association met at Put-in-Bay, Ohio, August 2-3. The attendance was fair. One of the principal features of the meeting was the address of President Weaver. His plea was for greater effort being made for the production of better graded commercial stock. Grading standards were loose and it was difficult to purchase a uniform and conscientiously graded lot of stock. He deplored the practice of storing such large quantities of low grade fruit. Only the best should be placed in storage and the seconds be summarily disposed of. President Weaver sounded an accurate note bearing on the trend of fruit growing when he said that small family orchards are on the wane and that they are being supplanted by the commercial type of orchard managed after approved business methods. The membership fees were raised from five to ten dollars.

Officers elected: President, D. O. Wiley, Detroit; vice-president; J. G. Hendrickson, Philadelphia; secretary, A. Warren Patch, Boston, treasurer, W. L. Wagner, Chicago. The next meeting of the association will be held at Niagara Falls in 1906.

—The Massachusetts Horticultural Society held a successful peony exhibition. Among the principal exhibitors were E. J. Shaylor, T. C. Thurlow, H. A. Stevens Company, George Hollis, Dr. C. S. Minot and O. B. Hadwen.

THE AMERICAN PEONY SOCIETY.

A notice of the meeting of this society was crowded out of our last issue.

The second annual meeting and exhibition of this society occurred in Chicago on June 16 and 17. The meeting was held in the Auditorium Hotel.

Among the principal exhibitors were the Peterson Nursery, Chicago, which captured a long string of prizes including the silver cup for the best twelve varieties. The Cottage Gardens Company, Queens, N. Y., secured first premium for the largest and best collection. Vaughan's Seed Store, Chicago, was among the first winners as was also J. F. Rosenfield, West Point, Neb., E. A. Reeves, Cleveland, Ohio, The Jewell Nursery Company, Lake City, Minnesota, Klehm's Nursery, Arlington Heights, Illinois.

The president had the following to say in regard to the peony nomenclature. "One of the crying needs of such an association as ours, in the surprisingly chaotic state into which the nomenclature of the peony has been allowed to degenerate, is the straightening out of the names, and if this association should do nothing else, striking from the list duplicate or nearly duplicate and worthless varieties and making it possible for the trade to list fifty or sixty of the best sorts under names and descriptions that would render their identification certain and make possible extensive deals between different peony growers, insuring the buyer of getting exactly what he wants whenever he places an order and then should disband, it would have accomplished one of the greatest benefits to floriculture in general and amply repay all the effort put forth and expense incurred in its organization and maintenance. Realizing the importance of this question of nomenclature, a competent nomenclature committee was appointed and has already accomplished a long step towards straightening out the tangle which has been the source of annoyance and a bane to all who have attempted to purchase peonies. I now refer to the extensive test plot at Cornell University which has been planted with upwards of a thousand varieties of peonies all of which have been contributed by its members without one cent of expense being incurred by the society. It is a foregone conclusion that this attempt to straighten out the peony nomenclature, taken up under the supervision of Professor John Craig, of Cornell University, whose careful and efficient work performed in other lines is ample guarantee of the thoroughness with which this work will be done—will be productive of great results and will place the entire fraternity under obligations not only to Professor Craig but to Cornell University and, last, but not least, to the American Peony Society itself."

THE TEXAS NURSERYMEN'S ASSOCIATION.

The Texas Nurserymen's Association was organized at College Station, Texas, July 4, 1900. The annual meetings, which have been held regularly since the organization, convene at College Station, Texas, in July of each year in connection with the Texas Farmers' Congress. Call meetings are held when thought necessary desirable by the Executive Committee.

The objects of the Association are acquaintanceships, exchange and sale of stock, elevation of the conduct of the business and protection against the introduction and spread of noxious diseases and protection against fraud and dishonesty.

Memberships are accepted from persons actually engaged in the nursery business in Texas, Arkansas, Louisiana, Oklahoma and Indian Territory. The annual dues are \$1.00 after the membership is accepted by the Executive Committee. It is desired that all loyal nurserymen become members of the Association, thereby sharing the duties and benefits. The present membership is forty and increasing.

TEXAS NURSERYMEN ORGANIZE FOR ANNUAL MEETING OF NATIONAL ASSOCIATION.

The Sixth Annual Meeting of the Texas Nurserymen's Association and the Twenty-first Annual Session of the Texas State Horticultural Society held a joint meeting at the A. & M. College of Texas, during the annual convention of the Texas Farmers' Congress on July 25-27th, inclusive. The nurserymen are largely supporters of the State Horticultural Society. This meeting was largely attended and enthusiastic. Among the most interesting matters were first, the special order of the day on the 26th to discuss and arrange for the annual meeting of the American Association of Nurserymen at Dallas, Texas, June, 1906. The following committees were appointed to co-operate with the committees of the American Association:

Committee on Finance:

C. C. Mayhew, Sherman; O. K. Phillips, Rockdale; Sam H. Dixon, Houston; J. S. Baker, Fort Worth.

Committee on Attendance:

E. W. Knox, San Antonio; John Watson, Brenham; B. L. Adams, Bonham; J. A. Lopeman, Enid, O. T.

Committee on Arrangements and Entertainment:

Stanley H. Watson, Houston; Wm. B. Munson, Denison; F. T. Ramsey, Austin; A. K. Clingman, Keithville, La.; M. G. Black, Mt. Pleasant.

Committee on Exhibits:

F. W. Mally, Garrison; John F. Sneed, Tyler; James Nimon, Denison; C. Falkner, Waco; Roland Morrill, Morrill.

Reception Committee:

Mr. Nicholson, Texas Seed & Flower Co., Dallas; E. J. Kyle, College, W. A. Yates, Brenham; D. H. L. Bonner, Omen; Six members from city of Dallas.

The president and secretary of the Texas Nurserymen's Association to hold themselves in readiness to co-operate with all of these committees at all times and in every way possible. Each chairman of these committees was empowered to add to his committee any members whom he thought advisable.

The second item of special interest was the consideration of the report of Secretary Sam H. Dixon of the Horticultural Society, who was also Commissioner of Horticulture from Texas at the World's Fair. At this time he presented his final report on exhibits. This report was referred to a committee of five, T. V. Munson, chairman, which committee reported that this report was very full and very valuable as a matter of reference as well as a record of the successes of Texas Horticulture at the Exposition in 1904, of which we may well be proud, and recommended that same be published. This report was adopted and a committee appointed to carry out the publication.

The third item was the New Inspection Law, passed by the last legislature of Texas, and which went into effect on July 14th. It is well to state that the nurserymen were not the originators of this law. A. W. Orr, of Omen, Texas, has been appointed inspector.

Many valuable papers were read and discussed. It developed that owing to excessive and continuous rains, much fruit has rotted and been unprofitable throughout the fruit belts, general results being rather unsatisfactory.

JOHN S. KERR,

Sherman, Texas.

Business Movements.

THE CANADIAN NURSERY CO. LTD. MONTREAL, P. Q., CAN.

Was incorporated in Montreal July 27, 1905. The incorporators are: James Bennett, electrical contractor; Arthur L. Peek, superintendent; Ernest Tenny, clerk; V. Renillard Dupuy, merchant and Archibald Ferguson, merchant; all of the city of Montreal. The capital stock is forty-five thousand dollars. The company expects to plan, plant and manage farms, parks and all kinds of enterprises related to the handling of land.

Ernest Tenny is secretary-treasurer. The office of the company is in Renouf Building, Montreal, Ont. Canada.

ESTABLISHED 1870 BY LEWIS WILLIAMS.

E. P. Bernardin has had twenty-one years' experience, sixteen of which have been devoted to the business management of the Parsons Wholesale Nurseries under which name the business will be continued with E. P. Bernardin as proprietor.

Have the largest general stock they ever grew and this year are especially heavy on fine blocks of apple, peach, apricot and E. Harvest B. B. from root cuttings.

Mr. Aug. Rhotert, of 26 Barclay Street, New York City and his wife spent a very pleasant week in Washington, attending the S. A. F. Convention and also visiting the different places of interest.

ANNOUNCEMENT.

I take pleasure in announcing that I was formerly a member of the firm composed of C. A. & J. E. Stoner trading as "The Battlefield Nurseries" at Gettysburg, Pa., and I now own the Westminster Nursery at Westminster, Maryland. I have disposed of my half interest in the title "Battlefield Nurseries" to C. A. Stoner and I now remain owner of the undivided one-half interest in the growing nursery stock known as the Battlefield Nurseries at the time of my retirement therefrom May 17, 1905, and will also supply my trade therefrom.

Westminster, Maryland. J. E. STONER,
Long Distance C. & B. Phone 103-R. Sole Prop'r of The Westminster Nursery.

BUFFALO TO DENVER AND RETURN \$30.50.

G. A. R. ROCKY MOUNTAIN TOUR.

The 39th Annual Encampment of the G. A. R. will be held at Denver Colorado, September 4th, to 9th. Many of the veterans and their friends will avail themselves of the low rates which have been made to visit Colorado and the Rocky Mountains. An attractive itinerary has been prepared embracing all the principal points of interest in the Rocky Mountain section.

The New York State Headquarters Train will leave Buffalo Saturday, September 2d, via the Wabash Railroad. Kinports and Company Tourist and Excursion Directors of New York have the arrangements in charge. Applications for accommodations on this train should be made early. Mr. R. F. Kelley, G. A. P. D., Wabash, R. R. 287 Main Street, Buffalo, N. Y., will furnish further particulars to all interested.

The American Grape Acid Association announces that the reward of \$25,000 for the discovery of a successful process of producing cream of tartar in commercial quantities from grapes is still offered. To make cream of tartar from grapes is not difficult. To do it cheaply, and to manufacture the acid in commercial quantities is not so easy. The chemists of the agricultural colleges ought to be able to draw down that twenty-five thousand.

Pacific Fruit World.

One of the largest irrigating enterprises in the country is being prosecuted by the Canadian Pacific Railway in the western Province of Alberta. This railway owns some 3,000,000 acres of land east of Calgary. This land is fairly satisfactory for grazing, but the rain-fall is too scanty to admit of the growth of cereals. A gigantic irrigating canal was commenced in the spring of 1904. This canal will be some eighty miles in length, and will carry water enough to irrigate over 100,000 acres. The water will be taken from Bow River near Calgary and distributed by tributary canals over this immense tract. Not all the great irrigating enterprises are confined to the domain of Uncle Sam.

Correspondence.

A GOOD YEAR IN FLORIDA.

BUDDED PECANS PREFERRED.

NATIONAL NURSERYMAN.

We are enclosing you herewith \$1.00 for subscription to the NATIONAL NURSERYMAN from August 1905 to August 1906. We wish to say that we have been well pleased with your paper and do not want to miss a copy of it.

The season for extreme southern nurserymen has been exceptionally good this year, and most of our trees at this day are fully a grade larger than they usually are. We are making a specialty for the trade of budded pecans, Japan persimmons, figs, Muscadine grapes and Amour River privet.

We are glad to note that nearly all nurseries are selling the budded pecans and the business of raising seedlings, to be sold as seedlings, is becoming smaller every year. This is as it should be, as we do not consider a seedling pecan tree any more reliable than a seedling peach, or apple tree.

If you have the information on hand, we would thank you to give us a list of the states that require entomologists certificates, and the list of officials in the different states, with whom they should be filed.

Jacksonville, Florida.

THE GRIFFING BROS. CO.

NOTE—The NATIONAL NURSERYMAN published this information in full in the March issue. We are glad to present the salient features of the state requirements in another column.—Ed.

AMERICAN ASSOCIATION OF NURSERYMEN.

SUGGESTION FOR A FUTURE PLACE OF MEETING.

While with the Western Freight Classification Committee at Charlevoix, Michigan, we were especially attracted and interested in that place as one that would be most desirable for a meeting of the National Nurserymen's Association.

We found Charlevoix an exceedingly delightful place where we could be assured of pleasant weather, or at least not hot weather, for the holding of our meeting. We found the Inn Hotel, situated close to the depot of the P. M. Railroad, a most beautiful place situated on Pine Lake at the mouth of Traverse Bay. The Hotel is 440 feet in length, four stories in height, and on one side has a double verandah each 400 feet long, with a single on the other side, as well as a verandah at the end. These verandahs are wide and make exceedingly pleasant places for informal gatherings. They have a nice assembly room in which to hold our meetings, and rooms for entertainment. The hotel is located in grounds of thirty acres, nearly half of which is an elegant park nicely laid out. On the other side are located golf links, tennis courts, etc. It is about a half mile from the center of the town, and can be reached either by foot or by ferry. A large and elegant swimming pool heated for use in cool weather with lake bath when weather is warm enough. The hotel contains 260 rooms all opening outside, and can accommodate 500 guests, and to my surprise they offered us about the same rates as were given us at West Baden Springs this year, including our rooms for meeting, etc.

This is one of the most accessible points where we can have any such advantages, as it is as accessible to the Eastern parties as Chicago, and to the western parties as Detroit, making a pleasant railroad or boat ride from Chicago, and the Eastern members could take boats from Buffalo and make an agreeable trip.

It seems to me it would be well to keep this place in mind for our future meeting. We would have all the advantages that we would have at Thousand Islands, or any other point where we would have the assurance of cool weather, and the benefits of a watering place. The time of the meeting should be arranged for the light of the moon, which would make it so much more attractive on the water. And the most favorable railroad rates could be obtained—the tourist rate from all sections being better than our fare and a third rate.

Bridgeport, Indiana.

E. ALBERTSON.

DISTINGUISH BETWEEN HAIRY OR FIBROUS ROOT GALL AND HARD ROOT GALL.

EDITOR NATIONAL NURSERYMAN.

I have just received the August number of the NURSERYMAN, and notice therein Mr. Hedgecock's article on Crown Gall. Fearing that

the form of gall described by Mr. Hedgecock will be confused by some readers with the gall we have often described in Virginia as doing considerable damage to apple trees, I request space in your columns for a short note in regard to this disease.

The smooth, hard knot described by Mr. Hedgecock is not often seen in our Virginia nurseries except where it appears to be simply an enlargement caused by the union of the stock with the scion. The fibrous rooted gall, as shown by figure accompanying, is the type



HAIRY ROOTS.

of gall we have dealt with mainly in our publications in this state. Trees affected by this gall when planted often grow off rapidly, in some cases even more rapidly than trees with normally developed roots. They fail, however, to throw out normal roots, simply continuing to develop this fibrous rooted condition as is shown so well by the figure.

A number of trees of this nature were planted in our experiments some years ago, and in each case the results were as described above. The writer has observed a number of orchards in this state in which there were forty to fifty per cent. of the trees diseased in this manner. After three to four years the trees began to fail, and could be easily wrung out of the ground, not having formed any normal roots. Our experience with trees badly diseased with this form of Crown Gall indicates that they will not ordinarily come into fruiting.

Virginia. J. L. PHILLIPS, State Entomologist.

A CO-OPERATIVE STUDY OF THE PEONY.

Mention has already been made in these columns of the co-operative effort now taking place between the American Peony Association and the Cornell Experiment Station, which has for its object the clarification of peony nomenclature, and incidentally the study of cultural questions in connection with this interesting plant. Considerable additions have been made to the list of varieties planted, and the collection now contains upwards of 1,600 different lots. These are not necessarily distinct varieties. Many of them are duplicates, but their identity will be established as soon as the flowering season arrives, and a sufficient study of their character can be made. The following have contributed and are share-holders in this co-operative undertaking.

EUROPEAN PEONIES RECEIVED IN 1901.

	No. of varieties contributed.
A. Dessert, Chenonceaux, France.....	200
DeGraaff Bros., Leyden, Holland.....	121
Croux Bros., Chatenay, (Seine), France, Received April, 1905.....	76
L. Paillet, Chatenay (Seine), France.....	91
	75 vars. grafted

No. of varieties contributed.

L. van Leeuwen & Son, Sassenheim, Holland	
Peter Barr, 12 and 13 King St., Covent Garden, London, England.....	21

AMERICAN PEONIES RECEIVED IN 1901.

No. of varieties contributed

Cottage Gardens, Queens, N. Y.....	235
Peterson Nursery, Chicago, Ill.....	120
	5 no label
John Charlton & Sons, Rochester, N. Y.	97
	6 numbered
Ellwanger & Barry, Rochester, N. Y.	58
Andorra Nurseries, Philadelphia, Pa.	57
	4 numbered
	38 rec'd in 1903
W. & T. Smith Co., Geneva, N. Y.....	56
J. F. Rosenfield, West Point, Neb.....	111
	1 numbered
Storrs & Harrison, Painesville, O.....	10
Jackson & Perkins Co., Newark, N. Y.....	37
	3 numbered
A. H. Fewkes, Newton Highlands, Mass.....	36

ARE YOU GOING EAST OR WEST?

If so, you can save money by traveling on Detroit and Buffalo Steamboat Co.'s new steamers between Detroit and Buffalo. The service is the best on fresh water. Send 2c. for folder, map, etc.

Address: A. A. SCHANTZ, G. P. T. Mgr., DETROIT, MICHIGAN.

Obituary.

WILLIAM HOFFMAN, a florist of Pautucket, R. I., died on July 11, aged 67 years. Mr. Hoffman was not only a prominent florist of the state but a public servant of note. He served in the state legislature in 1887 and 1888. Mr. Hoffman was more than a mere florist, he was a student of botany and an experimenter of note.

LOUIS SIEBRECHT died in Floral Park, L. I. last month. A man who, for a number of years was a prominent florist and gardener in western New York. He was one of the pioneers in the modern floricultural world in that important section of Long Island. He was a practical man and an extremely successful plant grower. He was a distant relative of Henry A. Siebrecht and William H. Siebrecht.

DAVID S. GRIMES died at Denver, Colo., June 28, aged 77 years. Mr. Grimes was best known as a tree seed collector of the Rocky Mountain region. He was instrumental in advancing the horticultural interests of Colorado, being the first president of the state society and having the distinction of planting the first orchard at Grand Junction, Colorado.

A. G. TUTTLE, Baraboo, Wis. In the passing away of Mr. Tuttle at the advanced age of 90 years, death removed one of the most notable figures in the field of pomology in Wisconsin. For fifty years or more Mr. Tuttle studied the adaptations of fruits to Wisconsin conditions and for forty years of that time he was particularly interested in the introduction of the apples of Russia. At one time he had the largest private collection of this class of fruit to be found in the United States. The work of Mr. Tuttle will continue to live, for seedlings of the apples he assisted in introducing are appearing which are proving valuable in northern Wisconsin and other trying regions of the upper Mississippi Valley.

FORD SEED Co., Ravenna, Ohio. We enclose \$1.00 in payment of one year's subscription to NATIONAL NURSERYMAN. Can't well get along without it.

THE FARMERS' NURSERY Co., Tippecanoe City, Ohio. Enclosed find remittance of \$1.00 for renewal of our subscription for one year. We need THE NURSERYMAN in our business.

Fruit and Plant Notes.

Windsor Chief Apple. Form, oblate, slightly conical, regular; size, large; color, pink, shading to deep, dark red; skin, fairly smooth, dots, large and numerous; cavity, very shallow, a mere depression; stem, short, very stout; basin small, somewhat irregular; calyx, lobes short, and eye open; flesh, yellowish white; quality, subacid, juicy, pleasant, good; texture, breaking, melting; core, closed, small; seed, large, elongated, light brown; season, late winter.

Specimens received from W. H. Dempsey, Trenton, Ontario, Canada; described by John Craig. Date, December 4, 1902.

Windsor Chief appears to be of Black Detroit Family. This variety originated as a chance seedling in Wisconsin. It is a strong grower and of undoubted hardiness. Promising as a late winter variety.

AUTUMN FRUITING RASPBERRY.

The NATIONAL NURSERYMAN has recently received samples of a rather remarkable autumn fruiting raspberry from Hugo Beyer of New London, Iowa. This raspberry belongs to the black-cap section but differing in that it fruits almost exclusively on the young wood. Its fruiting habit prevents it from propagating by tips, as is the case with the normal black-cap. The fruit is of good size and resembles the "Gregg" raspberry quite closely. It appears to be remarkably productive and covers in its fruiting season a period from the first of August until hard freezing weather arrives.

ROSES FOR OUTDOOR PLANTING.

At the last (sixth) annual meeting of the American Rose Society the following list of roses was recommended for out-door culture in New England.

HYBRID PERPETUALS.

Baroness Rothschild, Clio, Prince Camille de Rohan, Baron de Bonstetten, Ulrich Brunner, Captain Hayward.

HYBRID TEAS.

Caroline Testout, Mme. A. Chatenay, Kaiserin Augusta Victoria, Madam Cochet, Captain Christy, La France.

RAMBLERS.

Sweetheart, Farquhar, Lady Gay, Debutante, Philadelphia Rambler.

MORE LIGHT ON SPENCER SEEDLESS APPLE.

I read in the *Rural New Yorker* of November 24, 1904, an article on the "Spencer Seedless Apple," under the signature of H., and the editor said it was from one of the highest pomological authorities in the country. In closing the article he said: "If the source from which the stock of the variety was obtained by Spencer could be located, the whole matter could, no doubt, be promptly cleared up without loss to the public." In the early fifties I obtained a few scions of an apple from a man in Virginia, called bloomless, coreless, and seedless. I was then owning a nursery at Springville, Vernon county, Wisconsin. In a few years I had several thousand trees in nursery and a few in orchard. One of Wisconsin's hard winters killed the orchard trees, and hurt the trees in the nursery so that I never sold any more trees there. Later, I grew a few trees in Grant county, Wisconsin, also Sac county, Iowa, just enough to hold this stock. In 1884, coming to this place, I brought scions and grew them in nursery; sold a few trees to a customer saying, "Wait and see what the fruit is. The fruit is not so able, not as good as Ben Davis." In 1890 I went to Grand Junction, Colorado, taking a few trees with me, letting J. F. Spencer have part of them. I left Grand Junction in 1896, not hearing one word of "John" developing the seedless. A. H. Jewett, a nurseryman here, grew a few in orchard until they fruited, then grubbed them up. There are two trees near here that I have for this year, to exhibit the fruit at the Lewis and Clark Fair this Fall. If "John" has an apple that will do what the seedless orange has done, "All hail the news."

White Salmon, Washington.

CHARLES WATERS.

Rural New Yorker.

NATIONAL NURSERYMAN:

GENTLEMEN:—We take pleasure in enclosing you herewith our check for \$1.00 in payment for our renewal subscription and desire to say that the journal certainly meets with our approval and you may always depend upon our aid and support as long as it is kept up to the present high standard.

Rochester, N. Y.

CHARLTON NURSERY COMPANY.

Quiz Column.

NATIONAL NURSERYMAN.

I am about to set out a rather large vineyard for market grapes, also for wine making, and would be much pleased to have your opinion as to the best kinds of grape vines for above purposes, suitable for the Missouri climate about twenty miles west of Hannibal, Missouri where my farm is located. I have purchased and read the book on grape vine culture and wine making by G. Hussmann, of California, but find that the gentlemen he mentioned as propagators of superior vines are dead or I cannot get any reply from them and others I have written are too high priced for their vines in large numbers. So if you know of any new good and reliable grape vines used between Buffalo, N. Y. and Toledo, Ohio, please let me know the names of them and where they can be procured. By doing so you will greatly oblige.

Chicago, Illinois.

J. S. S.

ANSWER 1. Among the varieties most popular for wine making in your vicinity are: Elvira, Missouri Riesling, Catawba, and Norton's Virginia. Now you might get another list from persons living in that vicinity which would be safer and more desirable to plant than this one and I am asking an experiment station man in Missouri to make a recommendation.

As to firms from which to buy your stock I would suggest that you correspond with Bush & Son & Meissner, Bushburg, Jefferson county, Missouri; Stark Bros. Co., Louisiana, Missouri; T. S. Hubbard Co., Fredonia, New York; Geo. S. Josselyn, Fredonia, New York, Louis Roesch, Fredonia, New York. These men are all well known grape growers and could undoubtedly furnish you with good stock.

Consult advertising pages of National Nurseryman.

Ed.

ANSWER 2. I would say that the grapes most generally used for wine on the river hills of this state are Norton and Cynthiana, Elvira, Montefiore and Concord. For a grape of the Concord type, however, I believe that Hicks has been shown to make a superior wine.

Columbia, Missouri.

J. C. WHITTEN.

CONDENSED INFORMATION REGARDING STATE REQUIREMENTS GOVERNING THE SHIPMENTS OF FRUIT.

The following states have no laws governing shipment of nursery stock.

Arizona, Florida, Kansas, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Vermont, Wyoming.

Fumigation is required by following states.

California (will be disinfected at destination as well as inspected), Connecticut, Delaware, Georgia, Idaho, Maine, Maryland, Michigan, Montana (at destination), New York (if shipped in from other states), North Carolina (not absolute but advisable to avoid delay), Oregon (all stock grown on apple roots must be fumigated), South Carolina, Utah, West Virginia.

The following states demand a duplicate certificate.

Arkansas, Georgia (file certificate with entomologist and secure tags), Kentucky (file copy of certificate to avoid delay), Maryland (file copy of certificate), Michigan (file copy of certificate to avoid delay), New Jersey (it is advisable to file certificate), North Carolina (file certificate), South Carolina (file certificate and secure tags), Virginia (file certificate and secure Virginia tags).

The following states require and honor certificates.

Alabama, Arkansas, Connecticut (inspection and fumigation certificates required), Delaware (inspection and fumigation certificate required), Georgia (official Georgia tag and inspection certificate signed by the nurseryman), Idaho (inspection and fumigation certificates required), Illinois, Indiana, Iowa, Kentucky (certificate of inspection and list of contents), Louisiana, Maine (either inspection or fumigation certificate), Maryland, Massachusetts (either inspection or fumigation certificate), Michigan (inspection and fumigation certificates), Minnesota, Missouri, Nebraska (the entomologist desires a certificate), New Hampshire (certificate of inspection or fumigation), New Jersey (certificate of inspection required), North Carolina (certificate of inspection, fumigation desired), Ohio (inspection or fumiga-

tion), Pennsylvania (certificate of inspection), Rhode Island (certificate of inspection or fumigation), Tennessee (certificate of inspection), Utah (require fumigation certificate), Virginia (inspection certificate), West Virginia (inspection and fumigation certificates), Wisconsin.

Obtain full information from the following offices.

Alabama, State Horticulturist, Auburn Ala.; Arizona, Director of Experiment Station, Tucson, Ariz.; Arkansas, State Entomologist, Fayetteville, Ark.; California, Deputy Commissioner of Horticulture, Ferry Bldg., San Francisco; Colorado, State Board of Horticulture, Denver, Colo.; Connecticut, State Entomologist, New Haven, Conn.; Delaware, State Entomologist, Dover Del.; Florida, State Entomologist, Lake City, Fla.; Georgia, State Entomologist, Atlanta, Ga.; Idaho, State Horticultural Inspector, Boise, Idaho; Illinois, State Entomologist, Urbana, Ill.; Indiana, State Entomologist, LaFayette, Ind.; Iowa, State Entomologist, Ames, Iowa; Kansas, State Nursery Inspector, Manhattan, Kas.; Kentucky, State Entomologist, Lexington, Ky.; Louisiana, State Entomologist, Shreveport, La.; Maine, Commissioner of Agriculture, Augusta, Me.; Maryland, State Entomologist, College Park, Md.; Massachusetts, State Nursery Inspector, Amherst, Mass.; Michigan, State Inspector of Nurseries and Orchards, Agr. College, Mich.; Minnesota, State Entomologist, St. Anthony Park, Minn.; Mississippi, State Entomologist, Agricultural College, Miss.; Missouri, State Entomologist, Columbia, Mo.; Montana, Secretary State Board of Horticulture, Butte, Mont.; Nebraska, State Entomologist, Lincoln, Nebr.; Nevada, Director Experiment Station, Reno, Nev.; New Hampshire, State Nursery Inspector, Durham, N. H.; New Jersey, State Entomologist, New Brunswick, N. J.; New Mexico, Director Experiment Station, Mesilla Park, N. M.; New York, Commissioner of Agriculture, Albany, N. Y.; North Carolina, State Entomologist, Raleigh, N. C.; North Dakota, State Entomologist, Agricultural College, N. D.; Ohio, Chief Nursery Inspector, Columbus, O.; Oklahoma, Director Experiment Station, Stillwater, Okla.; Oregon, Secretary State Board of Horticulture, Portland, Ore.; Pennsylvania, Secretary of Agriculture, Harrisburg, Pa.; Rhode Island, State Nursery Inspector, Kingston, R. I.; South Carolina, State Entomologist, Clemson College, S. C.; South Dakota, State Entomologist, Brookings, S. D.; Tennessee, State Entomologist, Nashville, Tenn.; Texas, State Entomologist, College Station, Texas; Utah, State Board of Horticulture, Salt Lake City, Utah; Vermont, Horticulturist, State Experiment Station, Burlington, Vt.; Virginia, State Entomologist, Blacksburg, Va.; Washington, Commissioner of Horticulture, Tacoma, Wash.; West Virginia, Director of Experiment Station, Morgantown, W. Va.; Wisconsin, Horticulturist, State Experiment Station, Madison, Wis.; Wyoming, Director Experiment Station, Laramie, Wyo.

Crop Reports

OHIO.

EDITOR NATIONAL NURSERYMAN.

Conditions of nursery stock in the Miami valley, O., at this writing are about as follows:

Apples, good condition, and growing nicely.

Pears, some leaf blight on leaves.

Cherries too wet, earlier in season, some blocks dropped their leaves prematurely and not as heavy and stocky as they generally are.

Plums, good condition especially Japan sorts.

Peaches, a very fine growth, large and stocky.

Small fruits, strawberries, raspberries and blackberries, all good.

Phoneton, O.

N. H. ALBAUGH.

NORTH CAROLINA.

We have had a fairly good growing season, and outside of Plums everything in this section is looking very well. It seems that there is a general failure of Plums throughout the country, so far as we are advised. Peach stock is not very plentiful, as the stands were not good. The apple stand is good; in fact, first-class, but we never know what we are going to be able to ship of Apple trees until we dig them. Trade has been good this season, and prices will no doubt be higher the coming fall and spring, on many things at least, than the past season.

Pomona.

J. VAN LINDLEY NURSERY CO.

ONTARIO.

We have had an exceptionally favorable season and everything is looking very fine with one exception, Aphis has been unusually prevalent and to a certain extent checked the growth of apple trees. We have had sufficient moisture and heat to make this somewhat of a model season.

Winona.

E. D. SMITH.

WESTERN NEW YORK.

We have had an ideal season for the growth of trees. It has been years, if ever before, that stock has done so well. We have been free from insects, and the foliage is as perfect now as it was in the month of June. We are all very busy with our budding. The planting in Dansville was very heavy this Spring and the demand for buds has been large, consequently, we are compelled to work over time. Sales thus far have ruled about as last season, and a large amount of stock has already been booked. The Nurserymen of Dansville will have a prosperous year.

Dansville, N. Y.

MOREY & SON.

THE NORTH WEST.

The season so far has shown brisk trade in all parts of the North West. Crops through this section are in the main an assured success. The black rust scare, while fulfilled in some sections, has not proved to be an obstacle to the sales as a whole. No matter how the crop experts figure there is nearly always more money in the farmers' hands than a stampeded press would lead one to suppose. The much advertised "Compass Cherry" which by the way should always be catalogued as "Compass Cherry-Plum", seems to be taking a peculiarly strong hold on the Western fancy. From every hand come inquiries for buds and scions. We alone have received requests to furnish an aggregate of nearly half a million. It would be almost a shame to take the money. And yet it shows the trend. A prominent Iowa banker just wrote us 47 varieties of abuse for selling him what proved to be "only a d—— sour little plum"—while from even as far away as Vermont we receive commendatory letters describing it as a "really wonderful production." And occasionally we read in an up-to-date catalogue that in quality it is "equal if not superior to the Morello cherries." Such is the "Compass." Speaking of the weather, Minnesota has now for the fifth consecutive year stayed outside the arid belt. Abundant rains have followed the summer through the upper Mississippi showing a conspicuous high water mark almost unequaled. Nursery, orchard, garden and forest alike show the effects.

Lake City, Minn.

R. A.

THE SOUTH WEST.

The nurseries of this country are in very good condition. Trees have made a fine growth, owing to plenty of rain. Dormant buds put in have not done so very well on account of the showers and some rebudding is necessary.

As to orchards, the peach crop has been hurt by so much rain and the brown rot has been very prevalent. Apples and pears are making a nice crop, fine size, good color with but little apple scab so far as we have seen. Jonathan and Bellflower at this time are rather extra nice and are ready now for market. Ben Davis, which by the way in the Red River Fruit Belt is far superior to the Ben Davis of the North as was demonstrated fully last year at the World's Fair, has some apple scab but otherwise is of fine size and appearance and promises fine yield and good prices. These are the principal varieties and other standard varieties are doing equally as well.

PREPARATIONS FOR ANNUAL MEETING.

The Committees appointed by the Texas Nurserymen's Association in July in anticipation of the meeting of the American Association next year at Dallas, are awake and looking out for the interests of that Convention. The program committee of the American Association is endeavoring to have Prof. Wickson and Mr. Luther Burbank of California present. The Texas Committees on Entertainment and Attendance are equally active.

We had the pleasure of a visit to Texas of President Albertson which proved to be very timely and much enjoyed by the Texas people. We are pleased especially to know that Mr. Albertson thought our July climate very fine, as we have good breezes nearly all the time.

Sherman, Texas.

COMMERCIAL NURSERY & ORCHARD CO.

SEPTEMBER SPECIALTIES.

For reliable box straps try Ward-Dickie Steel Co., Indiana Harbor, Ind.

World's Fair gold medal peonies at Charlton's, Rochester, this month.

An aluminum tree caliper is on the market by F. W. Watson & Co., Topeka, Kas.

Blackberries from root cuttings are a specialty of T. S. Hubbard, Co. Fredonia, N. Y.

A full line of nursery stock is now on the docket at Morey & Son, Dansville, N. Y.

Standard apples, pears and dwarf pears are offered by Sears, Henry & Co., Geneva, N. Y.

The Forest Nursery & Seed Co., McMinnville, Tenn., is furnishing forest seeds tree and seedlings.

Two and three year old apple trees are offered at low rates by the Ellisville Nursery, Ellisville, Mo.

J. G. Harrison's Company extend the hand of hospitality in this issue—and it is thoroughly sincere.

The International Nurseryman is a trade journal published in the interest of Australasian nurserymen.

Western grown apple seedlings and apple root grafts are offered by the Barnes' Nurseries, Cincinnati, O.

The Shawnee Nursery Co. of Topeka, Kas. offers apple seedlings and apple trees in wholesale quantities.

The Knox Nurseries, Vincennes, Ind. are offering a fine line of cherry, apple, peach and hardy catalpa seedlings.

A stock of Japan plums, Morello cherries, and Carolina poplars is offered by R. R. Harris, Harrisville, W. Va.

Fruit seeds and fruit stocks are now on the minds of most nurserymen. Try Thomas Meehan & Sons, Dreshertown, Pa.

Own root roses and a general line of nursery ornamentals are to be found at H. J. Weber & Sons Nursery Co., Nursery, Mo.

The Snow Hill Nurseries of Snow Hill, Md. carry a large stock of the leading varieties of peach trees and are pushing the propagation of grape vines.

How many nurserymen have seen Forsythia suspensa (golden bell) grown as a standard? This is one of the specialties of Hoopes Bro. & Thomas, Westchester, Pa.

The Americana plum is the great plum of the Northern Mississippi Valley. The Jewell Nursery Co., Lake City, Minn. is headquarters for seedlings of this type.

Attention is called to the opportunity to develop a nursery business in the Payette Valley, Idaho, by the selling of a nursery. Address Mrs. T. R. Hubbard, Payette Valley, Idaho.

Three and one half tons of apple seed sown by one firm is an almost inconceivable quantity! L. R. Taylor & Sons, Topeka, Kas., sowed this quantity and should have apple seedlings "to burn."

LEGISLATION.

IMPORTANT ACTION OF JOINT COMMITTEES OF SEEDSMEN, FLORISTS AND NURSERYMEN'S ASSOCIATION.

It having seemed desirable that the three leading associations representing the Seed, Nursery and Florists interests of the country co-operate in various ways together, a joint committee met at the New Willard Hotel, Washington, D. C., consisting of the following persons: Harlan P. Kelsey, of Boston, Mass., and T. B. Meehan, of Germantown, Penn., appointed by the American Association of Nurserymen; F. W. Belgiano, of Washington, D. C.; and Chas. M. Page, of Des Moines, Iowa, appointed by the American Seed Trade Association. F. R. Pierson, of Tarrytown, N. Y. and J. A. Valentine, of Denver, Colo., appointed by the Society of American Florists and Ornamental Horticulturists.

The following persons were also duly accredited as members of this joint committee: C. L. Watrous, of Des Moines, Iowa, from the Nurserymen's Association. Geo. S. Green, of Chicago, from the Seed Trade Association, and Benj. Hammond, of Fishkill on Hudson, N. Y., from the Florists, but they were not present.

The committee was organized by electing F. R. Pierson chairman and Chas. H. Page secretary.

After considerable discussion, it was decided to co-operate on the fol-

lowing subjects and such other matters of mutual interest as may be brought for action or consideration from time to time.

1. Unite in striving to secure legislation which shall be favorable to one or more of the allied associations of Seedsmen, Nurserymen and Florists.

2. Work for the defeat of legislation which would prove unfavorable to either association.

3. Try to secure favorable rulings in the custom house regarding imports of seeds, plants, bulbs, trees and horticultural merchandise and supplies.

4. Should Congress revise present tariff classification and import duties, to strive to ascertain what changes, if any, are desired by the trade at large and work for their adoption.

5. Secure as favorable classification and rates as are possible on all classes of freight and express matter.

6. To strive to do away with the Government Seed Distribution by Congressmen.

7. To secure the Postal rate of \$8.00 per 100 pounds on catalogues, pamphlets and other printed matter weighing 2 ounces each, or more, without affixing stamps.

8. To secure a convenient parcels post system, both domestic and foreign.

9. We deprecate the giving of commissions to gardeners or others who have charge of making purchases for public institutions or large private buyers, and believe that some plan should be devised to do away with this practice.

It was moved that copies of the minutes of this meeting be sent to the President and Secretary of each association, and also to each member of the joint committee—Carried.

On motion the Secretary was instructed to purchase a record book in which to keep the records of each meeting.

A letter was read from W. H. Grinnell, President of the American Seed Trade Association, and also letters from Geo. S. Green and C. L. Watrous.

It was moved that a special committee, composed of one member from each organization, be appointed by the chairman to consider the subject of graft or commissions paid to the agents of buyers—Carried—and the chair appointed Messrs. Kelsey, Hammond and Page. On motion a committee, consisting of Messrs. Page, Pierson and Watrous was appointed on Postal legislation.

The following resolution was presented:

Resolved, that it is the sense of this meeting that each association should, as far as possible, appoint each year the chairmen of the three committees which are most concerned in subjects of mutual interests as members of this joint committee.

At a subsequent meeting the following committees were appointed on Transportation, Messrs. Green, Pierson and Meehan.

CHAS. N. PAGE, Secretary.

SOUTHERN NURSERYMEN'S CONVENTION.

The seventh annual convention of the Southern Nurserymen's Association was held at the Monticello, in Norfolk, Va., August 16. In the absence of the president, J. C. Miller of Rome, Ga., was elected to preside. The Southern nurseries were well represented. Almost every nurseryman of prominence in the South, east of the Mississippi, being present.

A good program was presented and the leading questions before the Southern nurserymen were thoroughly discussed. Specialists from the experiment stations and from the national departments were present and contributed valuable addresses. It was a meeting of unusual interest to the nursery trade, one which no progressive nurseryman could afford to miss.

The following papers were delivered and thoroughly discussed.

"Crown Gall," by Prof. G. G. Hedgecock of the Mississippi Valley Laboratory of the Bureau of Plant Industry. After thorough and exhaustive experiments it is shown that crown gall in apple is not infectious or contagious, and not specially harmful to the tree, though it is found almost universally, in orchards and nurseries.

"Co-operation," by Mr. Orlando Harrison of Berlin, Md., was an interesting and timely paper on the need of co-operative work among nurserymen.

"Where to Draw the Line in Nursery Restrictions," by Prof. W. M.

Scott, of Bureau of Plant Industry, of Washington, D. C. He treated of the relations between the nurseryman and the state, as regards legislation. Prof. Scott has had long experience as entomological worker and is thoroughly conversant with the subject. He suggests more uniform and reasonable legislation as affecting the nursery industry.

"Fumigation of Nursery Stock," by Prof. J. L. Phillips, State Entomologist of Virginia. He has been making some exhaustive experiments along this line, of which he gave the nurserymen present the benefit.

"San Jose Scale," by Prof. R. I. Smith, State Entomologist of Georgia. His paper gave valuable information on the subject and advised how best to keep clear of it. The scale has ceased to be an object of much fear among nurserymen since the introduction of successful methods of holding it in check.

"Transportation," by J. C. Miller, of Rome, Ga. He told of the woes of the shipper and means were suggested for lessening these troubles."

Legislation and other subjects were touched upon. The papers were well prepared and gave much valuable information. Great interest was manifested in the proceedings and nearly every one present took an active part in the discussions. It was a splendid meeting.

Officers elected for ensuing year: Mr. Orlando Harrison, Berlin, Md., president; Mr. J. A. Young, Greensboro, N. C., vice-president; Chas. T. Smith of Concord, Ga., secretary and Treasurer. Next year the convention will meet in Chattanooga, Tenn.

After adjournment most of the members accepted an invitation to visit the Harrison Nurseries of Berlin, Md., and become the guests of these good people for a couple of days. Transportation and every accommodation had been provided and it proved a most enjoyable trip. The immense size of this nursery came as a surprise to some of the visitors, but notwithstanding its great size, every part of it showed the most careful cultivation, spraying and attention, and finer blocks of Apple, Pear, Peach and other stock would be hard to find anywhere. The offices and packing houses were well arranged and equipped for handling their immense business, and the thorough organization which was apparent on all sides created a very favorable impression. It is a splendid nursery and is an object lesson to every tree grower, showing what can be done by earnest and zealous application.

Not content with the handsome entertainment thus far furnished, they gave the party a trip to Ocean City, where all the pleasures of a day at the seaside were enjoyed as the guests of Messrs. Harrison and their charming wives. It was a great treat to the visitors who now regard the Harrisons not only among our greatest nurserymen, but also among our cleverest entertainers.

CHAS. T. SMITH, Secy.

Our Book Table

HOW TO KNOW WILD FRUITS, Maude Gridley Peterson. 340 pages, Illustrated. Published by the MacMillan Co., New York. Price, \$1.50 net.

The purpose of this book is primarily to call attention to the attractive winter features of trees and shrubs, and secondarily to afford a means of identifying the principal conspicuous fruited plants native to our highways and woodlands. The volume deals with herbaceous as well as woody plants. Of course it is not complete, as for instance in the case of the thorns, only a half a dozen or more examples of this large and interesting but very much confused group of trees are included. The treatment of each plant is orderly and simple. Fruit is first observed, then leaves, and flowers. The descriptions are popular and thoroughly non-technical. From this standpoint it will attract the beginner. The plants are grouped according to the color of the fruit, red or reddish purple, black or dark purple, blue, yellow, green, and white, being the color divisions used. Of course the great mass of material falls under the first division. The book has special value, we think, in connection with herbaceous plants, for many people are attracted by the bright clusters of berries seen in the woodlands in summer and autumn, often following comparatively insignificant flowers which have escaped the notice of the casual observer, in spring or early summer. The book will do much to bring about a closer acquaintance between the usefully ornamental plants and the woodland stroller.

"ANOTHER PAIR OF SLEEVES."

Time was, not very long ago,
When Mabel's walking skirt
Trailed half a yard behind to show
How well she swept the dirt.
But "short and sweet" are in again;
No more the grievance rankles,
For Mabel's now curtailed her train
And shows her dainty ankles.

But Mabel has a thrifty mind
To supplement her charms;
The frills that once she wore behind
The fastens on her arms.
Her sleeves are made in open bags
Like trousers in the navy;
No more she sweeps the streets, but drags
Her sleeves across the gravel.

London Punch

Professor S. J. Hunter of the Department of Entomology University of Kansas, Lawrence has been appointed inspector of the State in charge of nursery inspection and the shipment of nursery stock.

NOTES FROM LOUISIANA

There has been an increased interest in peach growing manifested by the farmers of Northern Louisiana during the winter and spring. While very few of them have undertaken the planting of commercial orchards a large number have materially increased the size of their family orchards and have substituted proven and better varieties in place of the miscellaneous collections of seedling tree heretofore grown.

The planting of family orchards, varying in size from one-half to four acres has been most in evidence along the line of the Queen & Crescent in North Louisiana and along the Kansas City Southern south of Shreveport. In nearly every locality which the writer visited within the past few weeks, many farmers can point with pride to handsome young orchards.

This is a promising beginning and is prophetic of a prosperous development of the fruit industry here in the near future.

One of the most interesting observations that we have been able to make this season in Louisiana, has been upon the effect of frost, or rather the lack of frost. Whereas it is conceded that a large percentage of the peach buds in Alabama and Georgia, in the same latitude and with practically the same elevation, have been killed by the early spring freezes, the peach crop here is apparently uninjured. In a number of small orchards that we have personally examined the fruit is uninjured, and we have not heard of any reports of injury to the commercial orchards, although we have not had opportunity to make a careful examination of any of these latter.

There has been a fairly large number of trees sold in Northern Louisiana, mostly at retail to the smaller growers.

One or two firms are this year making their first plantings near Shreveport, of what are expected to be eventually large commercial orchards. A number of commercial orchards have been planted out in the neighborhood of Calhoun also, where the example set by the North Louisiana Experiment Station in fruit growing has given very material encouragement to the industry.

The regulations recently adopted by the State Crop Pest Commission, making inspection of Louisiana nurseries compulsory and requiring inspection certificates attached to all shipments, both within the State and from without, have met with a most favorable reception by the more prominent Louisiana nurserymen. The consensus of opinion seems to be that this step should have been taken years ago, and nurserymen throughout the State are warm in their commendation of the step which the Commission has taken.

W. N.

The southern coolie is being supplanted by electric motors in the loading of fruit vessels with bananas in the West Indies. The United Fruit Company's steamers have machines capable of loading 25,000 bunches in eight or nine hours. This is a considerable saving over the hand methods formerly in vogue.

EXPOSITION NOTES. LEWIS AND CLARK.

FROM GENERAL PRESS BUREAU, LEWIS AND CLARK EXPOSITION.

Millet's famous picture, "The Man With The Hoe," which inspired Edwin Markham's even more famous poem of that name, is the feature of the fine art's exhibit at the Lewis and Clark Exposition. The picture is insured for \$100,000.

Homer Davenport's pheasant farm at the Western World's Fair is attracting considerable attention, because it is so radically different from other Exposition shows. The great cartoonist has the finest collection of pheasants and tropical birds in the world, and four Arabian horses which formerly belonged to the Sultan of Turkey.

The attendance at the Lewis and Clark Fair during the first four weeks was greatly in advance of estimates. Visitors from the East are now arriving in large numbers and the success of the project is assured. Early visitors at the Exposition found it much better prepared to receive them than other fairs have been, and went away enthusiastic in their praise of the show.

Kiddle Brothers of Island City, Oregon, have a hog that weighs 1,150 pounds and is still growing. The owners claim that the hog is the largest ever, and they probably are right, as the hog shown at the St. Louis Exposition, which, it was said, was the largest ever known up to that time, weighed but 1,110 pounds. Kiddle Brothers will exhibit their big hog in the stock show at the Lewis and Clark Exposition.

Coos County, Oregon, dedicated her building at the Lewis and Clark Exposition on July 19. Coos County has a population of less than 15,000 but the county raised \$10,000 for representation at the Western World's Fair, and has the only county building on the grounds. The building is constructed entirely of woods native to the country, Coos being especially wealthy in Point Orford cedar and other rare and beautiful timber.

A SQUARE DEAL REWARDED.

The following comes to us from a thoroughly satisfied customer of one of the large firms of the middle west.

"Though the expression of my thanks for the splendid packing and thoroughness with which you carried out my orders has been delayed, I trust it will be none the less gratifying. During fifteen years' residence in the East I have had, I think, two orders come through as I ordered them; yours is one. You not only filled the order completely and correctly with the finest lot of yearling trees I have ever seen, but carried out shipping instructions so that the shipment arrived on time. I am still out a large shipment from a neighbor nurseryman of yours who failed to pay proper attention to instructions, and for all he seems to care I am always likely to be out. You will understand how a number of experiences like this make me doubly grateful for your thorough business procedure. The trees came through in a little more than two months and every bud on every tree was alive and apparently as fresh as when dug.

I cannot close without giving you special thanks for your liberality. Instead of putting in as a premium a lot of old things you could not sell, you put in a liberal part of the body of my order, free. I believe in your Western Country they would call this "White."

I will be sending you, I hope, an order this autumn and would like some evergreens such as you do not handle. Can you buy them for me and ship with your order? I have had so much trouble, delay and expense getting trees that were dead from "don't care firms" that I would feel much more comfortable sending to you."

Feb. 16, 1905, Korea.

M. C. F.

The Quiney Market Cold Storage Company of Boston, Mass., is increasing its storage plant by an addition of one million cubic feet of space. This addition will also be fire-proof. When it is completed, the company will have more than seven million cubic feet of space in cold storage, and almost an equal quantity in general storage.

The shippers of oranges and lemons in California have won a big victory over the railroads in the question of their right to route shipments. This victory came in the form of a decision handed down by Judge Wellborn in the United States Circuit Court, and marks the successful ending of a great legal contest which has been going on for five years.

*Pacific Fruit World.***WANTED**

A thoroughly competent and reliable nursery foreman. A man that understands budding, grafting, planting, cultivating, digging and packing all kinds of nursery stock. A good place for the right man. Reference required.

Address, **W. W. THOMAS,**

Anna, Ill.

H. J. Weber & Sons Nursery Co.,**NURSERY, MO.****GROWERS OF GENERAL NURSERY STOCK.**

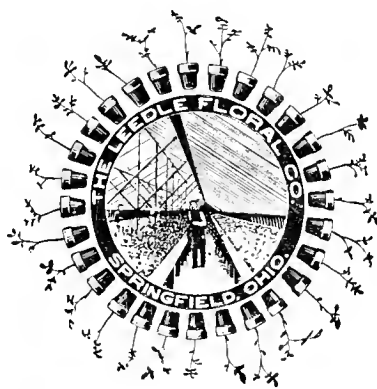
Have to offer for Fall 1905 and Spring 1906 a complete line of Fruit and Ornamental Trees, Shrubs, Vines, Roses, (own roots), etc., etc.

Send us your want list for prices. Trade-list will be ready early in September.

CORRESPONDENCE SOLICITED.

We Offer For Fall 1905 and Spring 1906

6,000 plums, Japan on Plums 1 and 2 years. 5,000 cherries, Early Richmond and Large Montmorency 2 year $\frac{5}{8}$ and $\frac{3}{4}$ grades. Carolina Poplar, Silver Maple, Catalpa Speciosa 9 to 10 feet and 10 to 12-foot grades. 30,000 budded apples 2 years $\frac{5}{8}$ and $\frac{3}{4}$. Prices low f. o. b. Correspondence solicited.

R. R. HARRIS, Harrisville, W. Va.**H.P. ROSES T., R.,**
H.T. Cl. etc**ORDERS now being BOOKED**FOR YOUNG PLANTS FOR LINING OUT
TO BE SET ASIDE FOR**FALL and SPRING DELIVERY**

New list just out of press. Want a copy?

THE LEEDLE FLORAL COMPANY

EXPERT GROWERS, SPRINGFIELD, O.

1,000,000 PEACH TREES

Smooth, clean, well grown two year old trees budded on seedlings grown from natural seed collected in this vicinity, which is entirely free from "Yellow" and all disease.

50,000,000 STRAWBERRY PLANTS

And all kinds nursery stock grown on virgin soil at small cost to be sold at lowest prices. Send your want list for prices.

Dept. M.

CONTINENTAL PLANT CO., Kittrell, N. C.

Established 1780.

Andre LeRoy Nurseries

Brault & Son, Directors,

Angers, France

ARE NOW BOOKING ORDERS FOR

FALL, 1905, AND SPRING, 1906

For nursery stocks, of their own growing, grading and packing. For quotations apply to

ANDRE L. CAUSSE, Sole Agent,
105-107 Hudson St., New York City.

PEACH SEED.

I really think these Texas Seedling Seed produce more trees to the bushel than any. It is satisfaction to be sure of a stand. I can send samples

PEACH SEEDLINGS

Just right for grafting. A great stock of fine trees for the trade.

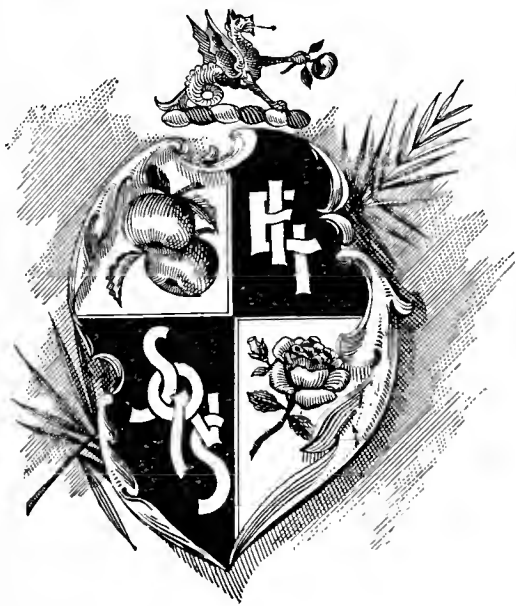
TUBEROSES

The new single Mexican.
A money maker.

Write for Descriptive Catalog.

F. T. RAMSEY,
THE AUSTIN NURSERY,
AUSTIN, TEXAS.

THE MONROE NURSERY



*Offer for the Coming Season
a General Line of*

Choice Nursery Stock

Correspondence Solicited

I. E. ILGENFRITZ' SONS CO.
MONROE, MICH.

When writing to Advertisers mention the National Nurseryman.

A Bargain in European Plum Trees

FINE ASSORTMENT AND BEST GRADING.
ALSO ABOUT 5000 1 YR. JAPAN PLUMS
AND 40,000 MAHALEB SEEDLINGS.

Home Grown

H. C. CLARK, DANSVILLE, N. Y.

A BARGAIN IN STANDARD PEARS.

Extra size, 6 to 7 ft; 1 inch and up 5 to 6 ft; 3-4 and up. Mostly Bartlett.

Can also furnish a few of the leading varieties.

It will be worth while to get our prices before buying elsewhere. Address

Pioneer Nurseries Company,
Salt Lake City, Utah.



Good Fruit Versus Bad

is the subject at issue and no wide awake farmer will doubt which is more desirable.

The Spra-motor

absolutely insures you 80% of an increase in the crop from your orchards. The Spra-motor pays for itself many times over which is better than costing you nothing. Don't confuse it with Spray Pumps. Write for Booklet (A). Full particulars free.

SPRAMOTOR CO.

Buffalo, N.Y. London, Canada.
AGENTS WANTED.

The Oakland Nurseries

OFFER FOR FALL AND SPRING SHIPMENT

The finest lot of two and three year old Apple trees grown

A good assortment of Peach and Plum

California Privet—all sizes

Plenty of shrubbery, including Berberry Thunbergii at a special price in large lots

G. R. BURR, Prop.

MANCHESTER, CONN.

Carolina Poplars Silver Leaf Maples

BEST STOCK THAT CAN BE GROWN.

WRITE FOR SIZES AND PRICES.

MILLS DALE NURSERY,

GREENVILLE, S. C.

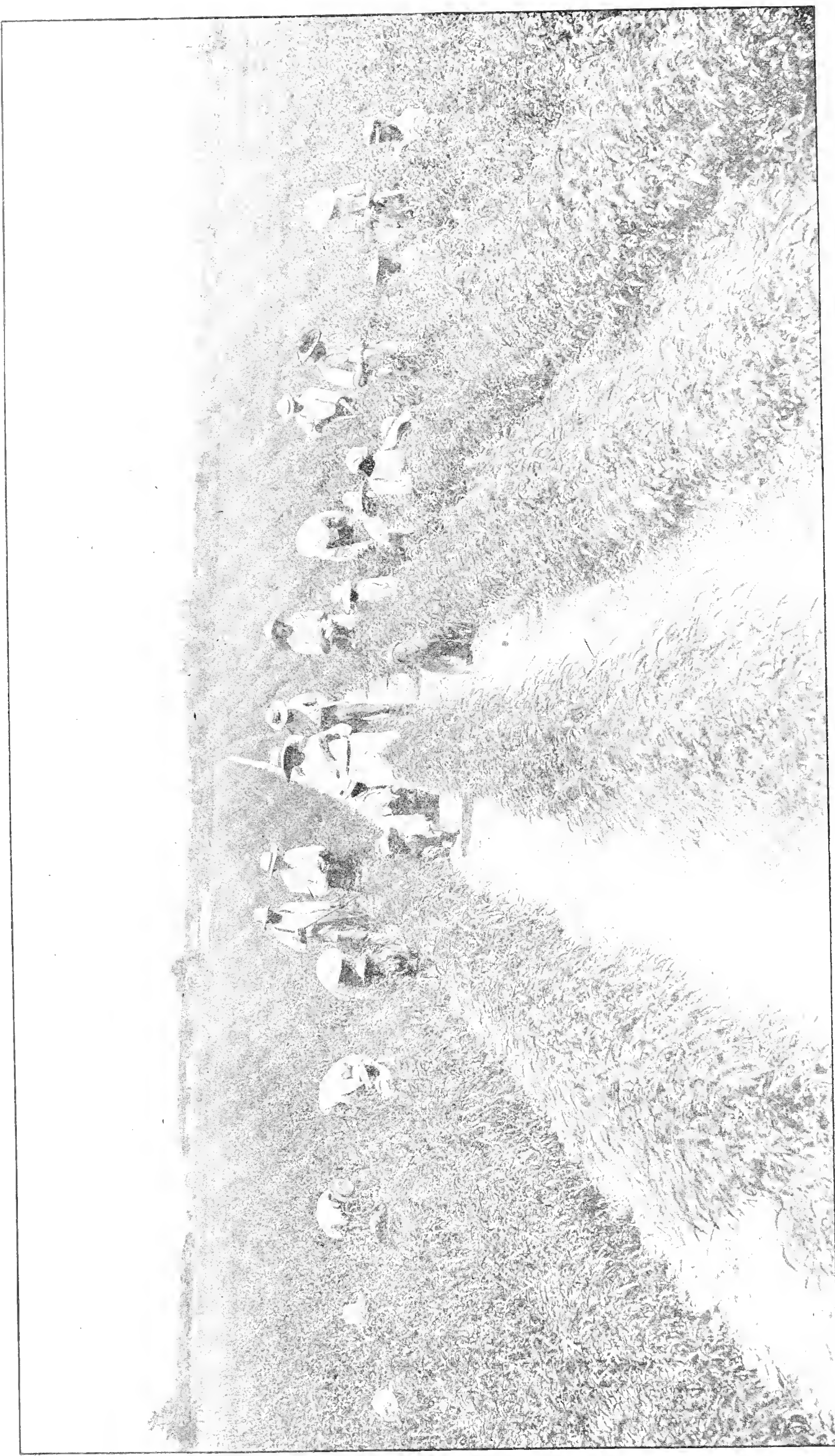
THE ELLISVILLE NURSERY

Offers for fall 1905 and spring 1906 two and three year Apple trees of leading varieties at very reasonable prices. Special low prices on ear lots.

A. WILMAS, Proprietor

ELLISVILLE, St. Louis County,

MISSOURI



THE BUDDING GANG AT WORK IN THE HARRISON'S NURSERY, BERLIN, MD.

A block of more than a million peach stocks. G. A. Harrison dressed in white in the foreground directs when to bud, how to bud, and when to say no.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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No. 9.

Where Peaches and Apples are Grown by the Million

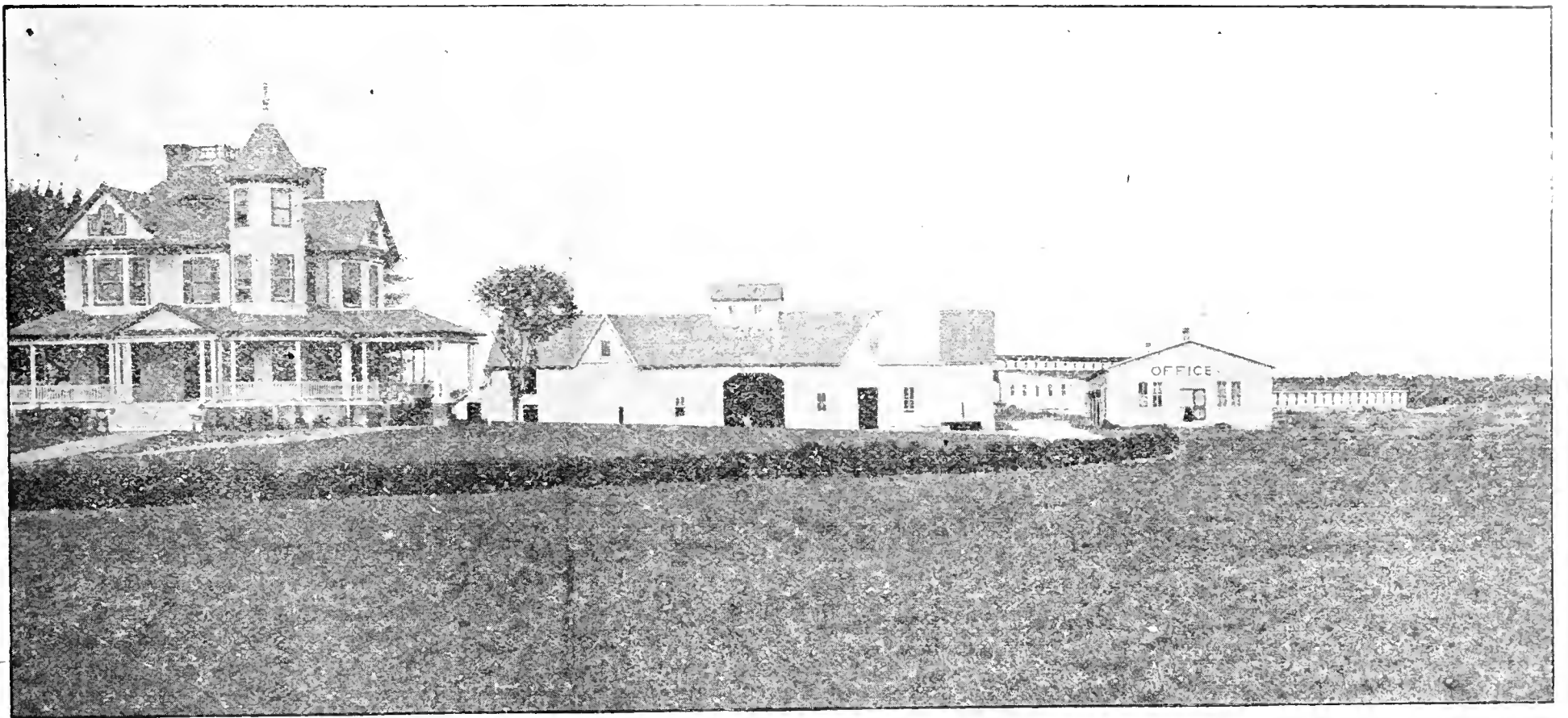
THE STORY OF THE PROGRESSIVE FIRM

OF J. G. HARRISON AND SONS, BERLIN, MD.

[By our special correspondent, illustrated with photographs made by our own artist.]

Situated within seven miles of the Atlantic Ocean, and one of Maryland's most popular summer resorts, Ocean City, one hundred and twenty four miles from Baltimore, one hundred and fifty miles from Philadelphia, and one hundred and sixty

high-grade nursery stock. An important part of this achievement lies in the fact that the growth of the firm has been solely dependent upon the proceeds of the business itself. No side lines, no lucky incidental investments, nor anything in the way



THE HARRISON ESTABLISHMENT, BERLIN, MD.

Residence of Orlando Harrison, barns, office and packing houses in the rear. From humble beginnings with small buildings, they have added from time to time to their packing houses which are now among the most complete in the east with many conveniences for loading from the packing house direct to the car without exposing stock.

miles from Jamestown, is one of the great Nurseries of the country. Considering its age and small beginning, the Harrison's Nurseries are among the striking nursery achievements of the times.

Like many American institutions, the inception of the enterprise was exceedingly modest. Twenty-one years ago, J. G. Harrison left a small lumber business in the North Carolina Swamps, and with his two young sons Orlando and "Al," purchased for \$2,500, a farm at Berlin, Md. Four years later, a crop of Smock peaches directed attention to the fruit-growing possibilities of the soil and climate of this section. Two thousand buds were set the same year, and the great business which is suggested by the budding this year of a quarter of a million of one variety of peach (Elberta), was started. (See frontispiece.)

The farm of one hundred odd acres has grown each year, till today, it is a tract of eleven hundred acres all occupied with

of appreciation of real estate has contributed to the development of the enterprise. It has been straight, hard application to the nursery work.

The firm is now composed of three members: J. G. Harrison, parent and senior member; Orlando Harrison, business manager, and G. A. Harrison, assisted by the senior member, nursery manager.

SPECIALTIES.

From the outset the firm has endeavored, and successfully, to establish itself as headquarters for certain lines of stock. The **Peach Tree** has always occupied an important place. Not only are leading varieties grown in wholesale fashion, but many thousands of each of the varieties known to the trade are propagated every year. This entails much care in the handling of buds and trees to avoid mixing and confusion. It is easy, however, when the work is systematized as it is here.

At present there are over 350,000 peach trees of fine quality, ready for market.

The second specialty taken up was **Strawberries** and this began some fifteen years ago, when a twenty-five dollar order

on a gentle ridge running north and south, and sloping east and west, thus affording natural surface drainage and an easy outlet for under drains when needed. This soil, mostly Miami fine sand and silty loam has been built up,



THE PACKING SHEDS

Preparing for winter. A gasoline engine is used for cutting box heads, sawing wood and pumping water in connection with packing house work.

was received for a dozen plants of as many varieties from J. H. Hale, of Connecticut. The first year, the firm felt elated when they sold 40,000 plants; now their annual output reaches the two and half-million mark. Much of the success of this end of the business is due to the growing of the plants on strictly virgin soil. Here, among the pine stumps, in soil filled with humus, strong, lusty plants are grown with perfect freedom from disease.

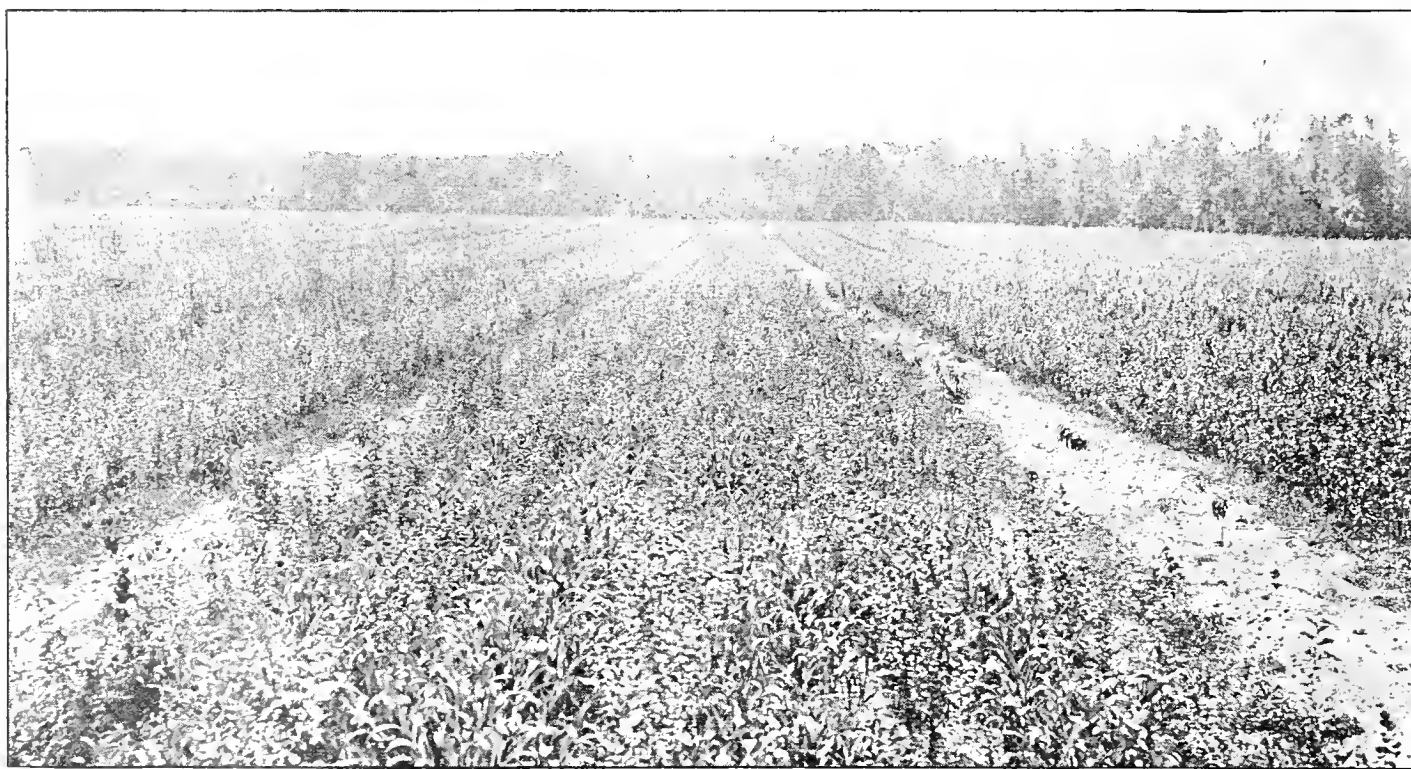
A third specialty for a number of years has been **Apples**. The friable, sandy loam grows fine, strong, stocky trees under the system of culture practiced and described later on. The visitor may now look at 150 acres or more in apples, of which Baldwin, York Imperial and Yellow Transparent are leaders.

NURSERY MANAGEMENT.

It might be said that there is nothing remarkable about the system of culture practiced. It consists in simply applying the knowledge which scientific investigation has shown to be reasonable and desirable, to the growing of tree crops; yet this is unusual in the Nursery business. In the extension of the nursery lands a number of so-called "worn out" or run down farms have been purchased. The Harrison's rent very little. These lands are situated

regenerated, by putting back the humus which unskillful management and poor rotation had burned out. Humus bearing crops are now frequently used and rarely does a block of trees go into winter quarters without a good surface cover of sorghum, millet or a leguminous crop like crimson clover or cow peas. This year fully sixty bushels of crimson clover seed have been used in seeding the broad acres occupied by apples, pears, cherries and other fruits which admit of the use of secondary crops of this nature.

Cultivation in the Nursery is not conducted for the primary purpose of suppressing weeds. The eradication of weeds is a minor consideration. The saving of moisture, the improvement of the tilth, the liberation of plant food, are the objects aimed at. So shallow cultivation follows the spring plowing, and is continued until the trees are laid by, at the close of the



APPLE SEEDLINGS GALORE.

This is a block of 350,000 Apple Seedlings which are from 2 to 3 feet high. Every fifth row has been planted for orchard purposes. The Apple Seedlings are French stock and of the best grade. In the interspaces sorghum was sown about the middle of June which has made a growth equal to the height of the seedlings.

lecting cover crops were understood and practiced. Not only that, but less rotation of nursery crops

growing season by using a plunker, which at once pulverizes and levels the interspace. Nurserymen do not use leguminous cover crops sufficiently. Many dollars laid out on fertilizers could be saved if the principle of using humus producing and nitrogen col-

and practiced.

would be needed and stronger, healthier growth would be obtained.



INSPECTION WORK

A three year old block of York Imperials with the Maryland Agricultural College Experiment Station in force inspecting the Nurseries. This inspection takes place every six months and occupies ten days to two weeks each time, hence the trees are "hand picked" and thoroughly inspected.

The principal of rotation is rigidly adhered to in the field program of the Harrisons and the character of the tree growth affords convincing evidence of the correctness of the practice.

ADVANTAGES OF LOCATION.

These are several: The Climate—this part of Maryland admits of a long budding season, which is a most important consideration to the tree grower. The budding season extends from June until October. Again labor questions are not nearly so difficult as in the north and east. It is a feat of no mean dimensions to be able to bud two million apple stocks and nearly as many peach stocks in one summer, yet such was accomplished two years ago without extraordinary effort. This year the plant of apple stocks for budding amounted to half a million, added to two hundred thousand apple grafts made during the winter. The Harrisons favor European apple stocks on their soil, and use root grafts both to

supply customers with such trees when needed as well as to spread the labor over the entire year. Apple grafts are frequently cut back at the end of the first year, thus insuring the strong, straight stem sought for by the growers. Each tree is hand rubbed with whale-oil-kerosene at the proper time to remove spurs and aphids. This gives a gloss and finish to the tree much to be desired.

ORCHARDING PHASES.

The Harrisons believe that the twentieth century nurseryman should be something more than a mere propagator of trees. He should know something of the behavior under orchard conditions of the varieties he is selling. The customer and planter is entitled to information as well as stock. To this end four trial orchards



THE RISING GENERATION

Hale and Henry Harrison, the young product. Sons of Orlando Harrison who are taught to work from the time they are five years old. "Leafing" is a good thing to keep boys out of mischief; they become expert and can do more work at this than many grown men.

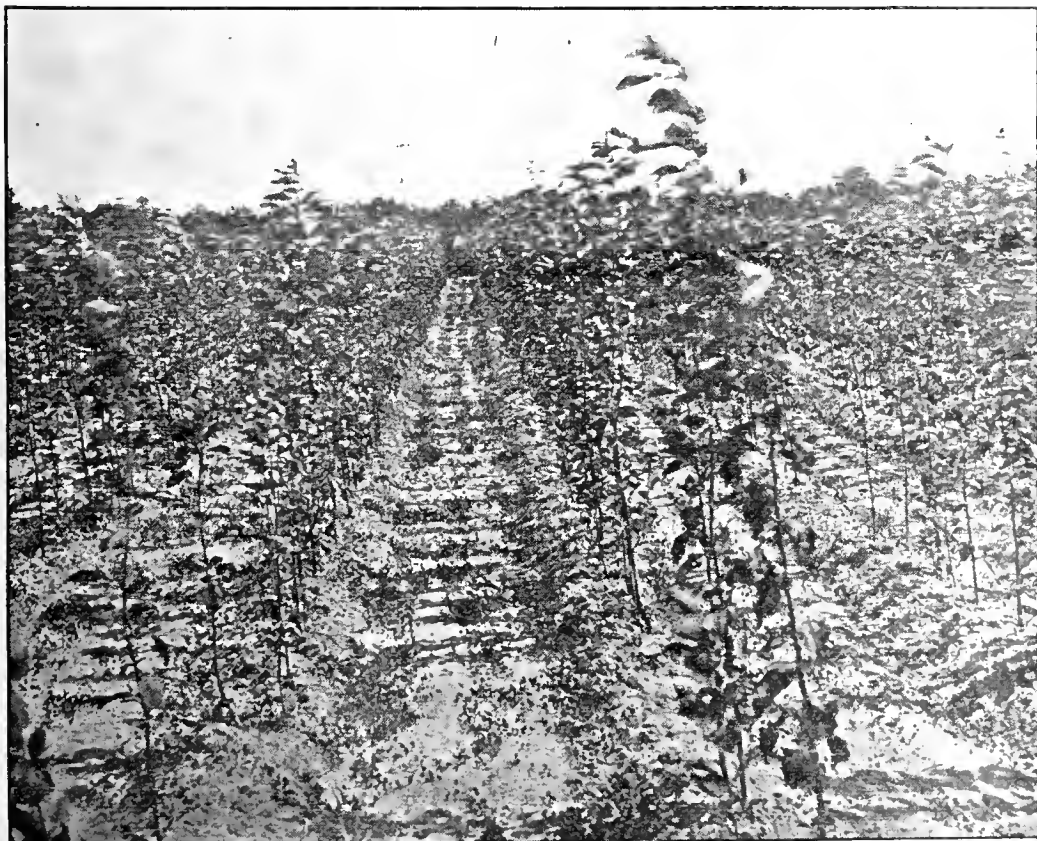
have been established, one situated in West Virginia, one in Northwestern Maryland, one in Southeastern Maryland, and one in connection with the home nursery. In these orchards a large collection of varieties are planted, using six trees of each variety as a basis for study. These trial stations will undoubtedly prove valuable aids in advancing systematic pomology in the state.

ROOT GRAFTING THE CHERRY.

Your correspondent was greatly interested in seeing a fine block of sour cherries grown by root-grafting on mazzard stocks. An excellent stand had been secured and the trees had made a very satisfactory growth. Mahaleb, however, is the principal cherry stock used. Root grafting the cherry again has the advantage of diverting labor from summer to the relatively slack winter months.

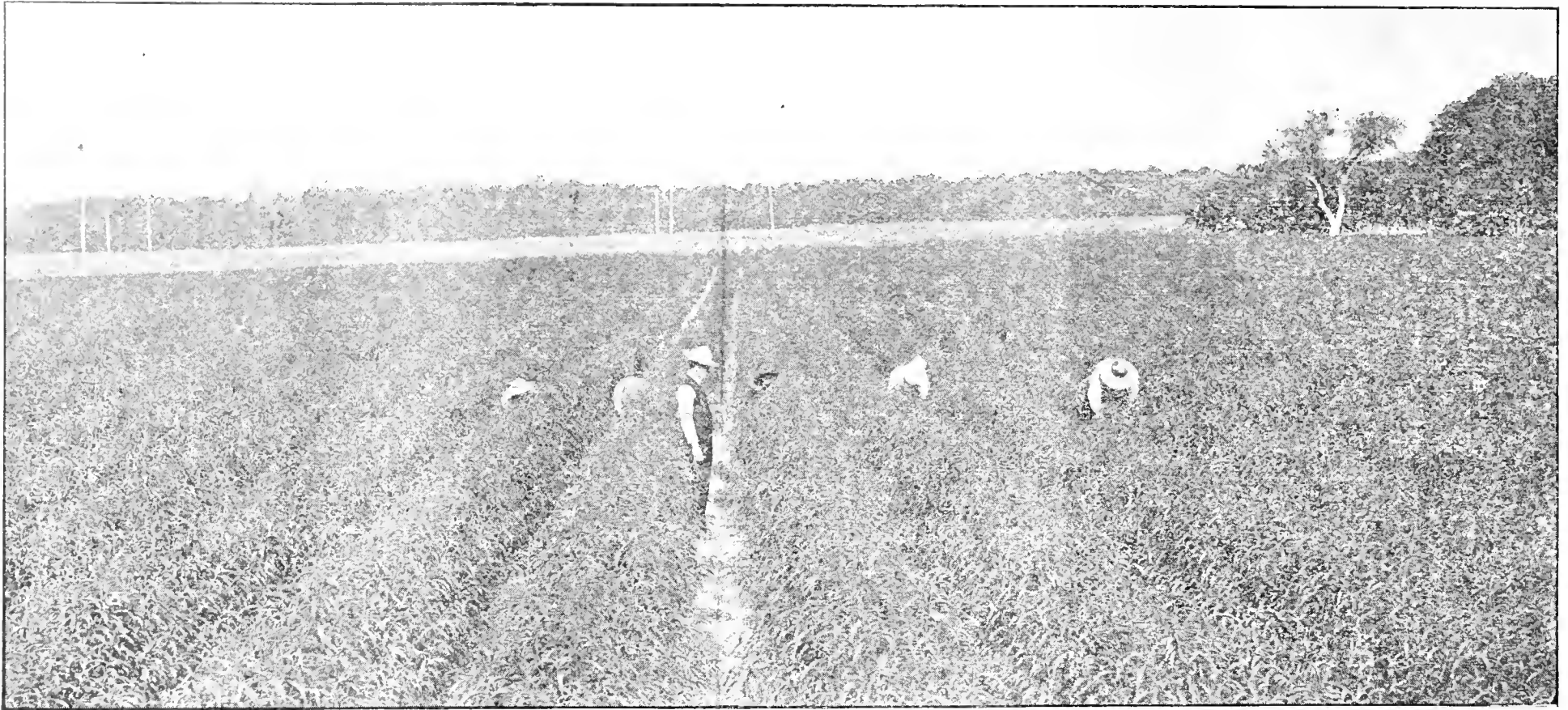
PACKING AND SHIPPING FACILITIES.

We have said that the climate of the Eastern Shore favors the Nurseryman. Freeze-ups occur, but they do not last long, and digging operations may go on during some period of each of the winter months.



A BLOCK OF BALDWINS

One year Baldwin apple buds 8 feet high on French seedlings, shows what can be done with best grade seedlings, by thoroughly preparing the soil, and giving good cultivation. This block was covered last winter with rye in the centre of the rows. This year crimson clover has been sown and is just coming up.



CUTTING STRINGS

250,000 Elberta have been budded in this block. The foreman of this farm stands in the foreground. Trees in the back ground is a field of apples of 150 acres two year old

In the same way grading and packing goes on more or less uninterrupted in the mammoth packing house along side of which run the tracks of the Pennsylvania Railway. The dirt

THE SECRET OF SUCCESS.

And what is the secret of the success of this comparatively young firm? We can answer in a phrase by saying intelligent,

persistent application to business, coupled with square dealing. The restless energy of the senior member of the firm, is duplicated in the office and business methods of Orlando Harrison, and the "rustle" of the field superintendent, G. A. Harrison. This push and constant attention to the demands of the trade; the furnishing of good value and good stock; and more than all, interests not bounded by nursery work but as broad as horticulture, has been the secret of much of the success which has attended the efforts of this firm. Busy men they are, but not too much engaged to give of their time to municipal affairs, and when one calls



A BERRY FIELD

Picking grass from strawberry beds before it saps the life of the plant. Annual plant about 60 acres each year.

floor of the packing house is on the same level as the floor of the freight car, greatly facilitating loading and unloading.

We were interested in learning that smudging is resorted to in the packing house during periods of exceptionally cold weather to prevent the reduction of the temperature to the danger limit.

This is a brief sketch of one of the aggressive and thriving firms of the middle south, that interesting section where, in the civil conflict, lines were drawn so closely, where deep conviction divided family ties and formed framework for the thousand touching incidents of that thrilling period.

The Harrison establishment has now woven into its history an interesting relic of the past in the form of part of the roof and walls of the birthplace of Stephen Decatur, the famous Commodore of the early days of the United States Navy.

on the business manager of Harrison's Nurseries, he also pays his respects to the Mayor of Berlin, for the two are one.



THE BUSINESS MANAGER AT WORK

The correspondence connected with a business of these dimensions is heavy. Mr. Harrison is ably assisted by an efficient secretary.

History of the Nursery Business in Texas

BY PROFESSOR T. V. MUNSON, DENISON, TEXAS.

(CONCLUDED)

The Munson Nurseries

In April, 1876, the writer, after being engaged with Mr. C. S. Bell, of Lexington, Ky., in the nursery business from 1870 to 1873, then for himself in Lincoln, Nebraska, from 1873 to 1876, established himself on forty-five acres of land in the northern suburbs of Denison, Texas, where he continued the business until the year 1887, when the business had out-grown the extent of land, and a change to the south side of Denison was made, and the nurseries opened upon a choice piece of sandy loam with yellow and red clay subsoil, 109 acres in extent, and the old nursery continued also a few years, but eventually all concentrated on the new location, which has proven to be highly adapted to the business.

A general retail and wholesale business has been conducted, and has extended throughout Texas, Indian Territory, Oklahoma, New Mexico, Arkansas, Louisiana, and Mexico, and more or less to all the states of the Union and to Canada. For a decade, from 1884 to 1895, quite an extensive trade in Phylloxera resisting vines, in the form of cuttings and seeds, was carried on with French vineyardists.

Much systematic experimental, and testing work with varieties of the various classes of fruits has been conducted in connection with the business. Very extensive work in the hybridization of nearly all the twenty odd species of American and the Vinifera grapes, and more or less with plums, peaches, persimmons and strawberries has been done, and the entire succession of extraordinarily fine and successful varieties, thoroughly and extensively tested and proven valuable, is now carried in these nurseries.

The business has never been vitiated by being carried on by traveling agents, but is conducted through a very carefully prepared catalog, and all sales made direct with its customers.

The name was changed from Denison Nursery to Munson Nurseries, on account of unprincipled persons in many regions where we had acquired a good reputation for reliability and excellence of varieties, claiming to be agents for and doing business in the name of "Denison Nursery."

When we began, little was known in this part of the country as to what varieties were adapted, and we were compelled to carry on a system of test orchards for many years, in order to obtain profitable successions of varieties of the various classes, until now we have fruits of all kinds adapted to the climate that are commercially profitable.

T. V. MUNSON.

Pilot Point Nurseries.

I commenced the nursery business in the year of 1877, at Valley View, Cooke Co., Texas. I moved stock and located at Pilot Point, Texas, in 1881. During this time I have propagated, grown and have sold trees to the planters at ten to fifteen cents each, many of which have been worth \$10.00 to the planter. I believe the greatest benefit I have been to the public has been in the propagation and introduction of Austin's Dewberry. I believe the next most beneficial feature will prove to be the introduction of the Jordan Blackberry. For twenty-five years I have been testing blackberries from many sections of the country, but have found none equal to the Jordan, as a medium late berry for the people.

You asked for names of others who commenced the nursery business before or at the time I did. John Spencer commenced the business in 1877 or 1878, about 8 miles west of Pilot Point, but moved to Decatur, something like 10 years later. J. W. Craven and father were probably the first nurserymen in this part of the state. They started a nursery

I think at Pilot Point probably as early as 1865, and deserve some notice or credit for being so early in the work and for establishing the fact that this is a fruit country. Col. W. W. Ross' work, later showed this. Two and one-fourth acres of the Keiffer pear which he planted produced 2,400 bushels one year, and 1,500 bushels the next.

Pilot Mound.

J. W. AUSTIN.

Gainsville Nurseries.

It appears W. S. Ross, now of Ahua, Ill., began growing trees here in '81. I bought him out in '83, and began growing a general line of nursery stock on a small scale, getting out first printed price-list in '84. The local demand then was very limited, the man that bought 50 trees then was considered reckless, and looked upon by his neighbors as a harmless lunatic! My business increased satisfactorily, and about 1890 I took my oldest son Walter, in as partner, at that time our business had extended all over the western part of the state, New Mexico, and I. T.

Now, that Texas has become a fruit country, it is overrun with "agents" and tree fakers, having no laws to protect the planter. It is made the dumping ground for many of the large wholesale nurseries of undesirable stock. We have made no change in location, only bought other land to make changes for growing stock.

Gainesville, Tex.

A. S. BASSETT.

Nurseries About Boerne.

I started in the fruit-growing and nursery business in a small way at this place in 1882, increasing my acreage from year to year until now I have about 50 acres devoted to fruit growing, mostly pears, and about 4 acres to nursery with a branch nursery at Garrison, Texas, conducted by my son.

There has been only one small nursery in this section, established before me, about 1875, at Lindendale, this county, by A. V. Yates, which was discontinued, however, 4 or 5 years ago.

Boerne, Tex.

G. A. SHATTENBERG.

In the Vicinity of Weatherford.

One, J. W. Tackett, worked in the nursery business as a hired hand in Tishomingo Co. Miss., about 1870. He came to Weatherford, Texas, in 1883, and soon afterwards established a nursery, and styled it "The Parker County Nursery." However, being unfamiliar with the climate, soil and other conditions of this country, he made slow progress for a number of years. Having by 1892, learned to successfully operate the nursery industry in this country, his business assumed a rather prosperous condition. He soon afterwards styled his business, "The Western Home Nursery." By 1900 his business had grown so rapidly that he was unable to manage and maintain it alone. By this time his two sons, J. E. Tackett and L. J. Tackett, had secured sufficient education to warrant them entering into business life, whereupon a partnership business was formed, known as "The Western Home Nursery," J. W. Tackett & Sons, Proprietors. Since this formation, the business has continued with a steady growth, having the present season grown about \$15,000.00 worth of nursery stock.

Weatherford, Tex.

J. W. TACKETT & SONS.

Caters to Mexican Trade.

I beg to inform you that I established my nursery in 1883, here on the same land where I have it now. I started on a very small scale, and budded all trees myself. To-day I have 40 acres in nursery stock, all under irrigation. I sold over \$8,000 worth of stock last year. We ship one-third of our stock to Mexico.

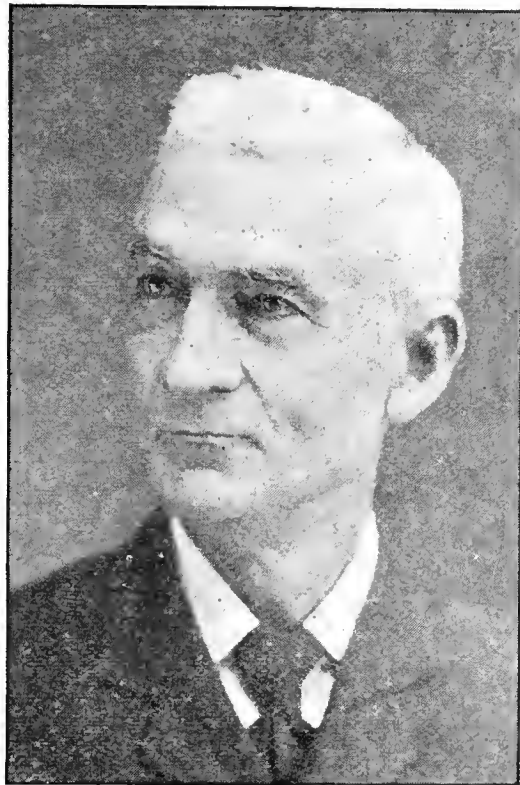
New Braunfels, Tex.

OTTO LOCKE.

The Bakers' of Fort Worth.

Robt. Drumm, Wm. Baker and J. B. Baker, established themselves in the nursery business in 1884, under the firm name of Baker Bros.

In 1889 the firm dissolved, Robt. Drumm continuing in business in Ft. Worth and Wm. Baker and J. B. Baker, also continuing in the same business here. We first started as nurserymen, then added greenhouses and afterward opened a store in town, handling also seed and cut flowers.



PROFESSOR T. V. MUNSON.
Denison, Texas.

The growing of trees is still our principal business. We do not employ an agent but sell direct through catalogue. Our trade is chiefly in the cities and towns, hence we give special attention to shade trees, evergreens, roses, and other ornamental stock.

In 1899 Wm. Baker died, but the business is still conducted under the same name, Mrs. Wm. Baker attending same interest.

Fort Worth, Tex.

BAKER BROS.

A Wichita Falls House.

In the fall of 1885, Dudley Hart, W. H. Downing and myself, J. L. Downing, started the Wichita Nursery, at Wichita Falls, Texas, as "Hart & Downing Bros." Our beginning was very small. In '86 we bought Mr. Hart's interest, and then ran as Downing Bros. We gradually built up until we have a very good business. We grow a general assorted stock suited to this section.

I have now purchased my brother's interest, and I am now better prepared than ever to grow trees, being under irrigation.

Wichita Falls, Tex.

J. L. DOWNING.

Firms About Tyler.

I had been propagating trees for our home orchards in southeast Ala. since a boy and up to the time I came to Texas. My father was a great fruit man, and I naturally inherited a love for the business. After traveling in Texas for two years as a dealer in quest of location etc., we started a nursery at Tyler under the name of "J. F. & A. F. Sneed," in January 1889. Owing to my brother's ill health and subsequent decease, we continued under this name only two years. Then I continued in the business, as sole proprietor, for seven years; John F. Ford, growing some stock for me several years.

and was also known under the firm name of "Sneed & Ford" for one year. In fall of '98, we dissolved co-partnership, since which time I have been in business alone.

From the very first I have sold my stock almost exclusively to the wholesale trade.

Altogether I have been in the nursery business at Tyler, Tex. for about 16 years. When I started in business there were three other nurserymen at Tyler: John T. Whitaker, J. C. Medlin and T. J. Shamburger.

Tyler, Tex.

JNO. F. SNEED.

J. T. Whitaker died several years ago, J. C. Medlin and T. J. Shamburger, still continue in business.

My circular letter was addressed to several other nurseries in the State, that have been in business some years, but they failed to respond. However, I think about all the pioneers are represented, either by themselves or by reliable witnesses.

Horticultural Societies.

In 1879 was organized the North-Texas Horticultural Society, meeting at Denison, Texas. It ran very successfully for ten years, and was the first successful horticultural society in the State. Through the interest awakened by it and by the aid of some of its leading members, was organized "The Texas State Horticultural Society," and a number of other horticultural societies. Out of the State Horticultural

Society was evolved "The Texas State Nurseryman's Association," "The Texas Farmer's Congress," and numerous other agricultural societies, all of which are now branches, or sections of "The Texas Farmer's Congress," under the able Presidency of Prof. J. H. Connell, now Editor of "The Farm and Ranch," but former Director of Texas State Experiment Station.

There are now above two hundred nursery and floral establishments in Texas, the larger cities having several each, and few towns in the State having a population of 1,000 or more are without a local nurseryman or two, while there are half a dozen or more doing more or less extensive wholesaling as well as retailing.

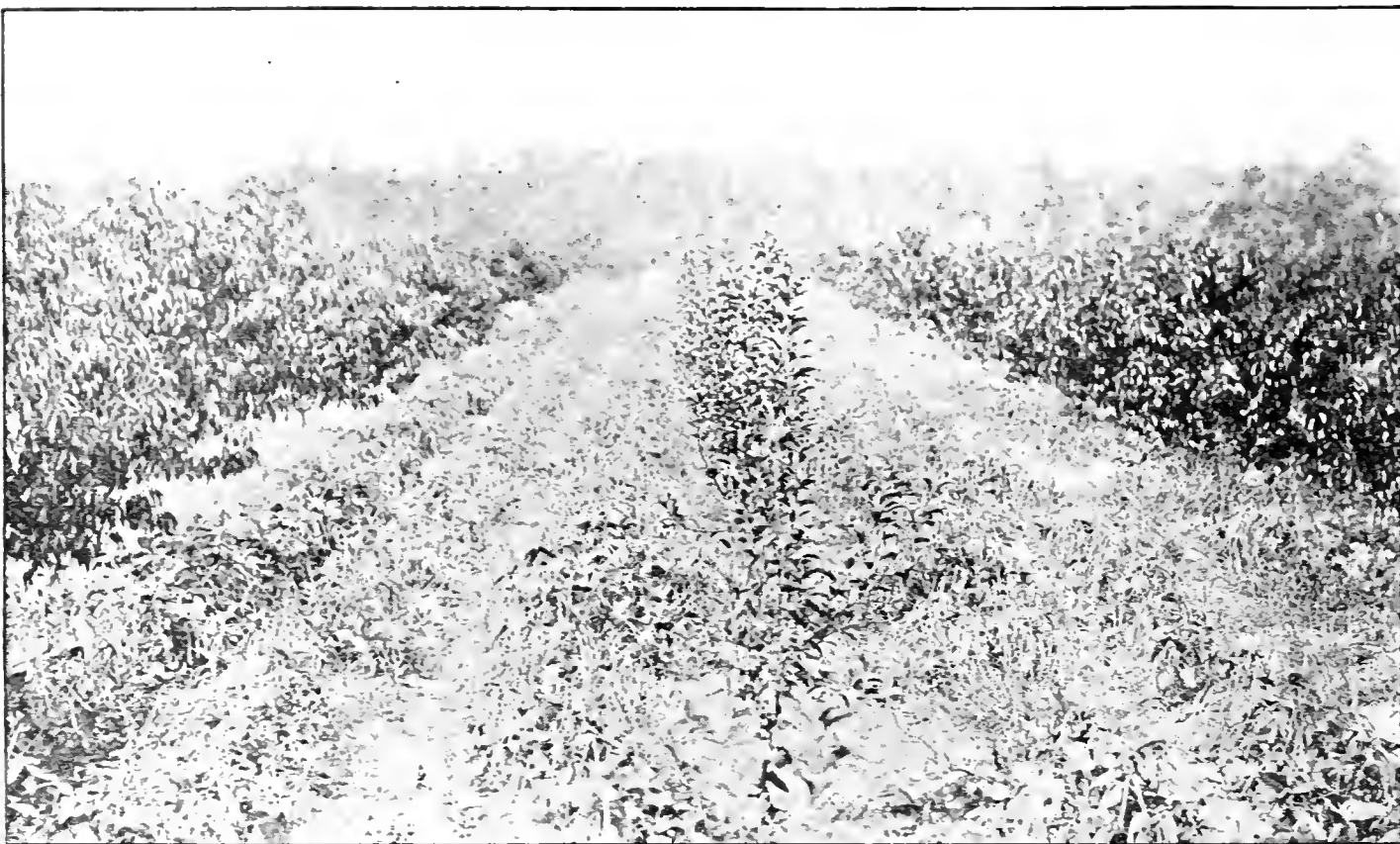
Through much experimental and testing work, chiefly of the pioneer nurseryman, has commercial fruit growing advanced from nothing in 1876, to very extensive and profitable proportions at the present time.

WHERE TO DRAW THE LINE ON NURSERY RESTRICTIONS.

[Professor W. M. Scott, Washington, D. C. Read before the Southern Nurserymen's Association.]

According to the Twelfth Census there were 367,164,694 bearing fruit trees in the United States in 1900, an increase of 153,712,106 bearing trees in a decade. This represents only bearing trees, and the nursery-

men can testify that there has been an unprecedented increase in the plantings of fruit trees during the four years since 1900 census was taken, Georgia alone having added 7,500,000 peach trees to her already enormous orchards. A reliable dealer recently remarked to me that the southern nurserymen produced at least 25,000,000 peach trees annually and that the bulk of these trees were



THE HARRISONS' NURSERY:

View of a young peach and kieffer orchard three years growth with three rows of cow peas between trees. The center of cow pea rows are again sown to sorghum and crimson clover for winter covering. An experiment to see how cheap an orchard can be well grown.

planted in the South. It will be seen, therefore, that the fruit-growing industry is taking on enormous proportions, and that the responsibility of the nurserymen is accordingly increasing, for it is to them that the orchardists must look for their annual supply of trees. The influence of the nurserymen has been felt to no small degree in developing the fruit industry to its present state. It is through them that the new and desirable varieties have been disseminated and through their influence that many farmers have been induced to become fruit growers, and they have freely given through their catalogues and agents, valuable instructions for planting and caring for trees. The nursery business is, therefore, an indispensable feature of the fruit industry, and, although, the orchardists must have protection against fraudulent practices of unscrupulous nurserymen as well as the unwitting dissemination of dangerous orchard pests, the nurserymen must, at the same time, have due consideration before the legislative assemblies and be allowed to exist.

INOPERATIVE LAWS.

Of the forty-eight States and Territories there are less than a dozen that are without operative laws governing the inspection, sale and transportation of nursery stock, and I venture the assertion that if these laws were enforced to the letter, half of the nurserymen in the United States would have to quit the business. Fortunately, the inspectors as a rule realize this and exercise such discretion as to admit of the sale of mil-

lions of valuable trees that should in strict accordance with law, be destroyed. Moreover, owing to the diverse climatic and industrial conditions of our country, and the lack of co-operation among the States, the various laws are so widely different in their requirements that the nurserymen are subjected to considerable annoyance and frequently to unnecessary loss.

It certainly must be conceded that the emergencies that hastily called most of these laws into existence have been so relieved as to justify certain ameliorating amendments. The sweeping requirement that an entire nursery should be condemned because a portion of it is found affected with a dangerous pest is no longer necessary, and the inspector should be given discretionary power to deal with such cases in such a manner as the conditions may warrant. If the entire nursery is hopelessly contaminated, destroy it, but whenever sound healthy trees can be saved out of the wreck, they should be allowed to go on the market, provided, of course, that the proper precautions are taken that only clean stock is allowed to go out. Moreover, a nurseryman situated in a neighborhood, where a given pest is already thoroughly distributed might be allowed to do a local business under less restraint than that imposed upon those liable to distribute the pest into new localities. In fact, when the speaker was charged with the enforcement of the Georgia law, it was his practice to permit the sale of stock from scale infested nurseries to orchardists on whose premises the pest already existed, the stock being first hand-sorted and fumigated. This again is a case in which the official

inspector would need to use his own discretion, carefully considering all the accompanying circumstances and conditions. The law should, therefore, provide that the inspector in charge might prescribe certain conditions upon which he would grant his certificate, and failure upon the part of the nurseryman to comply should constitute a violation of the law. No legislative body can prescribe a set of regulations that will meet all the varying conditions as they arise in the field.

ORCHARDISTS AS WELL AS NURSERYMEN NEED PROTECTION.

It should be thoroughly understood, however, that the orchardists need a certain amount of protection, and as a rule the nurserymen have been strong advocates of reasonable measures to secure such protection, but the difficult question now is where to draw the line. Whatever rules may be adopted will require constant revision. New pests will constantly arise and have to be added to the "dangerously injurious" list, and the old ones will be dropped from time to time as their nature and treatment becomes better known.

DISEASES NEED FURTHER STUDY.

In recent years crown gall has become one of the worst enemies with which the nurseryman have ever had to contend, and yet Mr. Hedgcock, of the Department of Agriculture, will tell you that his investigations begin to show that the ban may at least be raised from one class of these galls. It appears from his investigations that the apple crown gall is not a contagious disease, and does not materially injure the trees affected while crown gall of stone fruits is contagious and may seriously impair the health of the affected trees. Mr. Hedgcock is here to discuss this important problem himself, and I only mention it to show that a knowledge of the nature of these troubles is absolutely essential to the intelligent enforcement of nursery regulations. In the absence of this knowledge, I think the orchardist should be given the benefit of the doubt and have protection against diseases that threaten to become a menace to

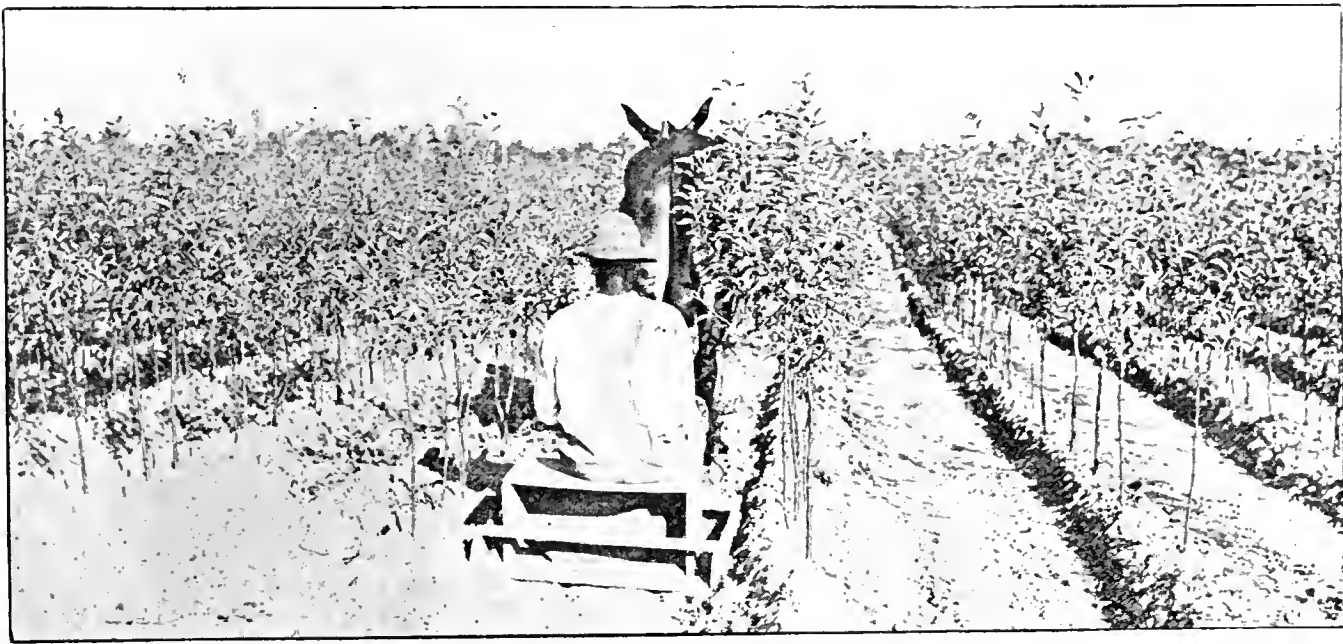
their business. In case of apple crown gall, the affected trees might thrive for ten years and then collapse, and until the investigation extends over a series of years sufficient to prove that such will not happen, the safest plan is to discard all trees actually affected, but this should never interfere with the unrestricted distribution of the healthy stock from the same nursery.

The yellows, group of diseases, including peach yellows, rosette and little peach, is another group about which we know very little, and yet we know that each of these diseases may be communicated from one tree to another, and that a tree once affected never recovers. It has been shown definitely that these diseases are readily transmissible to nursery stock through buds taken from affected trees. Unfortunately, the early symptoms of the yellows and little peach are so obscure that even a careful nurseryman might unwittingly cut buds from affected trees and scatter the disease broadcast on his stock. Here is a case in which the inspector would be justified in absolutely withholding his certificate from a block of trees propagated with buds from a diseased orchard. It is important, therefore, for the inspector to know the source of the buds and grafts, and so far as possible the nurserymen should have his stock trees inspected before propagating from them. There are specific instances where trees have come down with yellows within three years after planting, the disease having apparently come from the nursery.

GOOD SANITATION.

Pear blight is a disease the nature of which is thoroughly understood.

It is due to a specific germ, which is readily communicated from tree to tree by bees and other insects, as well as by the pruning knife and other artificial agents. And yet we are not quite prepared to recommend a definite set of regulations that would be expected to prevent the dissemination of this much-dreaded pest. It is distributed throughout our country from coast to coast, and no doubt the nursery-



THE HARRISONS' NURSERY "LAYING THEM BY."

The last time down the row. The part to the right is seeded to clover and sorghum for a winter cover which was smoothed down by the plain wooden sled. The part at the left is unfinished as you will notice by the rough clods showing the difference between finished and unfinished. This is a block where 175,000 Ben Davis apples were planted.

men unwittingly aided in the widespread dissemination of this pest. Not until a few years ago did it appear on the Pacific coast, and it is now so rampant in that section that it threatens the destruction of their entire pear industry. I think it not improbable that the immunity from blight which the California growers enjoyed for so many years was due largely to the enforcement of strict quarantine regulations. However, the very fact that a disease is already widely distributed minimizes the importance of restrictive nursery regulations looking to its control. At present we can only advise that the nurseryman should be required to carefully remove all blighted portions of the diseased trees, and in severe cases to reject the tree. No tree actually bearing blighted wood should be allowed to leave the nursery, as such tree is foreordained to perish.

REASONABLE LEGISLATION.

It is evident, therefore, that the orchardists need reasonable legislative protection against certain insects and diseases liable to be distributed on nursery stock, and at the same time these regulations must be of such a nature as not to require the useless destruction of good property. The great question is where to draw the line. The fruit growers are obliged to have this protection and they will have to pay for it. At the 1901 meeting of the American Association of Nurserymen, Prof. Bailey said: "High priced trees, within reasonable limits, mean better trees, better care, and better fruit growing."

—H. M. Simpson & Sons write that sales are coming in nicely for fall, and it looks as if they would have a fine fall trade.

The National Nurseryman

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PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

In general, the nurseryman at the close of the growing season of 1905, has no reason for complaint. It is true that there have been dry streaks in New England, and wet streaks in the

middle west, southern Pacific and south

THE SEASON FOR GROWTH.

Atlantic coasts that have not been conducive to the production of strong, vigorous trees; but in the averaging up, nurserymen

are generally well satisfied. Business has come, as it always will, to the nurserymen in proportion as industry, square dealing, activity and intelligence were displayed.

The initial movement of the joint committee of nurserymen, seedsmen and florists reported in our last issue, augurs well for the future of co-operative legislation. The personnel of this

ACTION OF JOINT COMMITTEES.

committee is strong; the objects are so important and numerous as to furnish abundant justification for aggressive action. The NATIONAL NURSERYMAN hopes that this

committee will hold such *ad interim* meetings as circumstances may warrant, and that it will have the undivided support of the respective executive committees of the societies represented.

This important society held its twenty-ninth biennial meeting at Kansas City, Mo., September 19 to 21. Notwithstanding the western freshets which so seriously crippled the

railroads running into Kansas City. The meeting was well attended and will go down into pomological history as one of the most successful held by this society.

AMERICAN POMOLOGICAL CONVENTION.

The cast was not as well represented as it should have been. The attendance from the west and southwest was excellent. T. V. Munson, of Texas, and Parker Earle, of New Mexico, represented some of the old guard. Hon. E. W. Kirkpatrick ex-president of the American Association of Nurserymen took a prominent part. Mr. A. Willis, of Ottawa, was the official delegate. In the absence of President Hale, Chairman Watrous, of the Executive Committee, presided with fairness and ability.

The program was packed full of good material, but the thing that will long linger in the memory of those who participated was the complimentary excursion over the Kansas City Southern and Frisco Railroads through the great fruit growing regions of Missouri and Arkansas. For five days the visitors to the number of 65 in their special train of Pullman cars were entertained by the railroad officials and the fruit growers of this interesting and promising section. Drives, receptions and banquets followed each other with strenuous rapidity during the five days of the excursion until the visitors were inclined to beg off. We can only mention at this time the warm hospitality of these good people, the beautiful climate, picturesque country and the great natural resources but hope to speak of it at greater length in our next issue. The trip was at once the most enjoyable comprehensive and instructive that we have ever taken. The Missouri Horticultural public was honored by having Mr. L. A. Goodman of Kansas City elected president. Mr. T. V. Munson of Texas is first vice. The other officers were reelected. To Mr. Goodman more than any one else belongs the credit of successfully engineering the magnificent excursion.

There has been a good deal of talk in newspapers and in horticultural circles about various new schemes—at any rate, called new schemes—for growing orchards. Prominent

HORTICULTURAL FADS AND FANCIES.

among these is the so-called mulch method. The men who have grown apples successfully for a few years by this method have become quite enthusiastic. Let us admit that two or three real successes have appeared; but is it not a fact that for each mulched orchard which may be looked upon as a proved success, we can show a hundred successfully cultivated orchards? It should be noted that the mulch method is a system of cultivation, and if consistently carried out, should without question, bring a measure of success.

Another example of what on the surface has the expression of a more definite fancy of the times, is Mr. Stringfellow's "new horticulture." This was first exploited eight or ten years ago. The new horticulture of that time consisted in a system of pruning trees at planting time. This pruning was so heroic and severe, that it reduced the tree to a mere stick, the top and roots having been entirely removed. Quite a large number of experiment stations subsequently tried this method of pruning trees at planting time, and very few, if any, are warranted by their experience in recommending it.

Mr. Stringfellow is a progressive man, however. His ideas since the exploitation of this first notion have been developing. He now goes back to original principles and says that after the trees have received this first heroic pruning, and have been set in the orchard, they should be left severely alone. No pruning knife should touch the top, nor cultivator disturb the soil about the roots. Mr. Stringfellow, in a word, goes back to Nature's method, and would allow the tree to grow at will after he has so vigorously mutilated it in his planting operation.

One of the arguments he uses—and an argument which is being exploited by at least one of our horticultural contemporaries—is that trees grown in sod produce firmer fruit with greater carrying capacity than trees grown in cultivated ground. Mr. Stringfellow proves his contention most summarily, by shipping a basket of sod-grown peaches from Texas to New York and return, and finding that they made the round trip in good condition. We do not learn that a basket of peaches of the same variety, picked from trees that were cultivated, grown on the same soil, and handled in the same way were forwarded at the same time; but he reasons on general principles that because failures had resulted in the shipment of fruit by cold storage at the same time, that all this fruit was grown on trees under cultivation, and that cultivation itself was the cause of any failure in the keeping of the fruit. It might be well for Mr. Stringfellow and others interested in this to look up carefully the cold storage experiments which have been carried on by the Division of Pomology at Washington for the past four years—experiments which have been conducted with the greatest possible care, and which are expected to throw light on this very point. Yet no such revolutionary results have been secured as those published recently by those who have been interested in following Mr. Stringfellow's efforts.

We would not for a moment attempt to detract one iota of credit from the enthusiastic efforts of Mr. Stringfellow on behalf of horticulture in general, but we do deplore the hasty

judgment based upon entirely insufficient premises and badly conducted experiments. Thousands of orchardists have been practicing this so-called new horticulture to their financial loss, and to the degradation of the fruit-growing interests of the country ever since orcharding assumed commercial proportions in America. This is the fundamental difficulty. We have been trying to grow trees for the special purpose of producing fruit crops, by Nature's method. Nature is not concerned that the tree shall produce a fruit with a maximum amount of pulp. Nature produces apples for the purpose of developing seeds so that the variety may be perpetuated. Man's object is different. He is after pulp—something to eat. For this purpose he forces his tree. We do not suppose that any great amount of harm will be done by such teachings as we have referred to above, but we cannot refrain from drawing attention to what might be regarded as the common sense view of whole subject.

NOTES FROM THE PACIFIC COAST.

Collections from deliveries have just about closed, and we believe that generally they have been fully as good this spring as during the last two years, throughout the entire Pacific Coast country.

Prospects for business for the coming year are fairly good. While the fruit crop throughout the whole Pacific Coast country is probably a little under the average this year, there are no entire failures reported unless it might be in some sections of California, where the unusually rainy weather during the months of April and May caused heavy shortages in the fruit crop. While the conditions for the setting of fruit were not ideal, the weather for nursery purposes could not be better, and as a consequence, nursery stock is looking exceptionally fine this year. California received a greater rainfall than for many years, while in the north the rainfall was somewhat under the average, allowing outside work to be carried on early and successfully.

Pacific Coast nurserymen are very much interested in the great and good work that Mr. E. Albertson, and the Transportation Committee have been doing before the Western Classification Committee of the Railways; and we think this work will be increasingly successful if the proper support and attention is given the committee during the year.

The Pacific Coast nurserymen believe that some time and attention should be given to horticultural laws, as they bear upon nurserymen generally, more particularly to the laws of the various states on the Pacific Coast. They would specially like to see some action taken in regard to the California law, which was amended two years ago, so as to give inspectors authority to quarantine trees on the mere presumption that they might be infected with some injurious disease, although they were unable to discover any actual disease or insect pest on the trees. This is dangerous power to place in the hands of any man, and there is no doubt such a law would be declared unconstitutional if carried to the higher courts.

THE STARKS' EXHIBIT AT POMOLOGICAL CONVENTION.

The exhibit of apples by the Stark Bros. at the American Pomological Society was one of the most attractive on the tables. The fruit was largely grown in the Pacific Coast States, although it was scattered all the way from Arkansas to Washington. Particularly fine samples of the Delicious apple were shown. The committee on awards recognized the exhibit by giving it a Wilder bronze medal.

Business Announcements

Furnished by Correspondents for which THE NATIONAL NURSERYMAN PUBLISHING COMPANY accept no responsibility.]

In 1901, B. E. St. John and myself established the Fairmont Nursery Co., at Fairmont, Minn. In May, 1905, B. E. St. John, Victor St. John, and Nina St. John, without my knowledge or consent, incorporated in the firm name. The last two named never having been connected with the old firm in any way. Proceedings are now pending to enjoin the use of the partnership name by the new corporation, to protect the trade and myself. I wish to state that the rating in Dun & Bradstreet's reports of either the Fairmont Nursery Co., or the St. John & McKisson were based almost wholly on property owned by me, outside of the partnership, and do not pertain in any way whatever to the new corporation. I am in no way responsible for their contracts, and anyone doing business with them should investigate for themselves.

McKISSON'S FAIRMONT NURSERIES,
G. D. McKISSON, Prop.

LOOK OUT FOR THE SPRAGUE MERCANTILE AGENCY,
CHICAGO.

BY OREGON NURSERY COMPANY.

The Oregon Nursery Company request us to give publicity to the following correspondence. We are pleased to protect the nursery interests in every legitimate way possible, and publish the essential portions of the letters.

OREGON NURSERY COMPANY, Salem.

We wish to make inquiry of you as to your experience with the Sprague Mercantile Agency of Chicago. One of their representatives has just called on us with a letter from you folks,—or probably it is a facsimile, showing that they have done some splendid work for your firm. Can you recommend them as being O. K. and would you advise a nurseryman turning his bad notes and accounts to them?

Thanking you in advance, and with our best wishes for your business we beg to remain,

Arlington, Neb.

MARSHALL BROS.

ANSWER.

We can probably best answer your inquiry by giving you a short history of our dealings with these people.

A little over a year ago, one of their traveling men came into our office with what purported to be letters and credentials from leading men of the United States, recommending them (Sprague Mercantile Agency), as collectors of bad debts. We entered into a contract with them, and placed in their hands several thousand dollars worth of notes and accounts for collection. They explained to us at the time the contract was entered into, that they would not handle any of the money, but that it would all be sent directly to us, and upon receipt of this money we were to pay them a commission of 10%, in addition to the retainer fee paid them at the time the contract was entered into. Some few collections came in to us from time to time, upon which we paid them 10% each month; once or twice, when the collections during the month did not seem scarcely large enough to warrant our making out a check, we let it go over, but in a few days we received a letter from them, stating that unless their commission for collecting was paid they would draw on us at sight, and each time we, of course, forwarded them their commission.

Things ran along in this way until June of this year, when the writer noticed that a large account that had been placed in their hands was still uncollected. As this account had been placed with them in error, and was from a party we felt sure would pay his account promptly, we took means to find out whether any payments upon the account were made or not, and immediately discovered that the entire account had been paid almost as soon as he had been notified by the Sprague Mercantile Agency. This, of course made us suspicious and led to an investigation. We have discovered that they had collected some five or six hundred dollars worth of notes and accounts, of which they have given us no return, nor have they ever notified us that they had collected this money. In fact, every dollar of the money forwarded to them direct, was unreported, while on every settlement made to us, they wanted their full commission and received it.

This letter will fully explain to you the kind of people they are. Our case is now in the hands of attorneys. We never gave them a letter of recommendation, and will say that we consider them very unreliable people, and would advise you to have nothing whatever to do with them. We are going to take the liberty of sending your letter, together with a copy of our answer, to the NATIONAL NURSERYMAN, for the protection of fellow nurserymen.

Doings of Societies.

NEW YORK STATE FRUIT GROWER'S ASSOCIATION.

The New York State Fruit Grower's Association met at Penn Yan, N. Y., August 16 and 17. The first day was occupied with addresses by the members of the State Experiment Station, and the second was devoted to an excursion down Lake Keuka, for the purpose of inspecting the vineyards along its shore. The meeting was well attended, and interest well sustained. Much complaint was made by grape growers about the prevalence of black rot. The disease this year is more injurious than it has been for many seasons.

SOCIETY OF AMERICAN FLORISTS AND ORNAMENTAL HORTICULTURISTS.

[Written especially for the National Nurseryman by Secretary Stewart.]

The annual convention of this lively organization was held at Washington, D. C., on August 15, 16, 17 and 18, with an attendance estimated at nearly one thousand persons including many wives and daughters of the members. Nearly every State in the Union was represented, as well as the various sections of Canada. The usual extensive trade exhibition was held in conjunction with the meetings, and was to many, the most interesting and instructive feature of the convention, comprising as it did, everything in the way of modern advancement in the line of greenhouse construction and equipment, florists' and gardeners' requisites and fancy goods, plants new and old, bulbs and seedsmen's supplies. This occupied three large halls.

As usual, when this Society meets the entertainment feature was very prominent, the people of Washington leaving nothing undone to make the visitors feel at home, and filling every available moment with free-handed hospitality. A mammoth barbecue on an illuminated lawn was an accompaniment of the president's reception on the first evening. Bowling and shooting tournaments were provided for the sportively inclined, and were indulged in during the hours when the Society was not in session. There were drives and lunches for the ladies, and on the fourth day an exhibition drill on the White House lot by the U. S. Engineer Corps, after which some five hundred of the visitors took trains for Baltimore where they were the guests of the Baltimore Gardeners' Club, and enjoyed a ride through the parks and "burnt district," and a sail down the bay.

The business sessions of the convention were full of life and interest. The opening meeting was devoted to addresses of welcome by President Gude, of the Florist's Club, of Washington, Hon. H. B. F. McFarland, Commissioner of the District, and Hon. Willet M. Hayes, Assistant Secretary of Agriculture. The address of President J. C. Vaughan, annual reports by secretary W. J. Stewart, treasurer H. B. Beatty, and various other officials were also received. The address of the president advocated increased activity individually and as an organization in the advancement of horticulture in all its departments, noting particularly the growing public interest in out-door decorative planting and the beautifying of the home grounds. He urged the claims of public exhibitions as uplifters and educators, recommended concerted action on various lines of mutual interest by the Societies devoted severally to the seed, nursery and floral industries, favored the establishment of a national council of horticulture, approved of the organization of local clubs and societies, and their affiliation with the national body, especially urging this course with respect to the private gardeners and commended the agitation in favor of better postal facilities, and State aid through experiment stations. The secretary's and treasurer's reports showed the organization to be in a most prosperous condition.

Among the features of the business meetings that followed were illustrated lectures by Prof. B. T. Galloway, on the work of the Bureau of Plant Industry, by Miss Susan B. Sipe, on horticultural education for school children, and by Oglesby Paul, on the ideal home for the man with a modest income. Many topics of general or specific trade interest were discussed also. Among the important matters on which affirmative action was taken were a proposed mammoth horticultural exhibition at Boston next spring, and the preparation of a text book for use in the teaching of horticulture in the public schools. The prize contest for essayists on the subject of the Ideal Employer brought out twenty three entries.

The selection for the place of meeting for 1906, and the election of officers had elements of intense interest this year. Dayton, Ohio, was chosen by a large majority, in response to an invitation which came as a surprise to most of the members. The presidency was won by W. F. Kasting, of Buffalo, in an energetic three-cornered struggle. H. M. Altick, of Dayton, was unanimously elected vice-president. For the nineteenth consecutive time Wm. J. Stewart, of Boston, won out as secretary, receiving three-quarters of the entire vote east. For treasurer none of the candidates could show a majority and, there being no election, H. B. Beatty, of Pittsburg, who has held the office for ten years, holds over for another term. Mr. Beatty's name had been placed on the ticket for president without his consent and was withdrawn therefrom at the last moment when it was too late to renominate him for the treasurership.

It is probable that an out-door exhibition of ornamental planting will be included in the program for the Dayton event, which will take place in August, 1906.

NEW YORK APPLE GROWERS TO ATTEMPT CO-OPERATIVE SELLING.

For some time it has been felt by the members of the N. Y. State Fruit Growers' Association, that the growers themselves should take some active steps to better their conditions in regard to the sale of their fruit whereby they may receive a larger direct return in both the domestic and foreign markets. In pursuance of this object a special committee on plans for marketing was appointed to thoroughly investigate the various systems of marketing, and to advise the members as to the most advantageous methods, says Thos. W. Campbell, in a circular letter recently sent to members of the New York State Fruit Growers' Association.

The Committee presented a report at the Summer Meeting of the Association, and the following resolution was adopted unanimously:

WHEREAS, the commercial success of the Apple Growers of New York, in competition with other localities, is imperiled, unless the products can be maintained at such a standard and of such uniform quality as to inspire and hold the confidence of the market, and,

WHEREAS, some method of co-operative packing, under a centralized and expert supervision, appears to be the only feasible method of securing a proper grading and uniform quality of No. 1 fruit. *It is*

RESOLVED, that in view of the opportunity opened by the Committee on Plans for marketing fruit, an effort be made in twenty or more localities, to secure the packing, under competent local supervision, of not less than a total of 50,000 barrels of apples, to bear the brand of the New York State Fruit Growers' Association, and to be placed on the market through the American Cold Storage & Shipping Company, and that a committee of five be appointed to determine whether the necessary quantity can be secured for this season, and if so, to perfect and carry out the arrangements for packing, inspecting, branding and shipping.

In accordance with this Resolution, the following Committee was appointed to attend to all the details connected with the operation of this plan: T. W. Campbell, Albert Wood, S. W. Wadhams, J. B. Anderson, W. C. Rogers, and T. B. Wilson.

"It is the desire of the Committee to establish as many central packing houses as possible, where the fruit will be gathered, graded, packed and branded, with the Association's brand. If you know of suitable buildings which can be secured for this purpose, we wish you would let us know of them. When it is not possible to handle the fruit in this way, other arrangements can be made. We can arrange to market every barrel of good fruit you have in such a way as to secure the best possible returns, and all profits will be received by the grower.

Nothing but No. 1 fruit will be exported, the No. 2 grade will be received, with the better quality, and sold to the very best advantage in New York and other domestic markets.

CATALOGUES RECEIVED.

The finely illustrated catalogue of the Continental Plant Co., has been issued and may be secured by those interested, by addressing the firm at Kittrill, N. C.

Folder of the Jamestown Exposition.

Sarcxie Nurseries, J. B. Wild & Bros., Sarcxie, Mo., wholesale and retail catalogue.

The Tree Breeder: The Rogers Nurseries, Dansville, N. Y., describes a list of high class apples grown from selected scions.

Fruit and Plant Notes.

THE GOLDEN PRIVET.

Within the last year or two this has become quite a favorite plant in London, and in the market we see plants in pots in all sizes from dwarf bushy little plants in thumb pots, up to quite large specimens, and they sell readily. Those properly established in pots retain their leaves all through the winter, but those taken up from the ground, soon get bare of leaves. As a plant for town gardens there are few more attractive subjects. I have recently noted many gardens where it has been doing remarkably well, and forming quite a nice contrast to the green lawns and the darker leaved shrubs. For window boxes it also does well, and for this purpose there will always be a large demand, for in most instances when they are taken out to make room for summer flowers, they are never used for the same purpose again. When grown in pots they give but little more trouble than they do in the ground, for the pots may be plunged in the ground and will require but little attention for watering, if some of the roots do get out into the ground, they will not suffer when taken up if they are well watered; but I find if they are taken up from the ground and potted, even if the greatest care is taken, they lose their leaves. If growing, this is not altogether so profitable as some things; they come in at a time when there is not much else to fill the stands, and there is little difficulty in keeping up a regular succession of stock. This Privet is also extensively used for cut foliage, and at the price it makes, it should be a profitable crop, and it is in use all the year round.

From the Horticultural Advertiser of August 30th, 1905.

GONZALES PLUM.

The Gonzales is one of the most interesting of the recently introduced hybrid plums. It represents better than almost any other variety the large group of hybrids now coming into notice and derived from crossing of the Japanese plums with the Wildgoose and Chickasaw types in America. The fruit is large and fine. The tree, however, seems to be rather a poor grower, and is not reliably hardy as far north as Massachusetts. The variety seems to be at its best in the central and south central latitudes. This seems to be about the best range for this class of plums in general, but the Gonzales is perhaps a trifle more tender northward than others.

Here is a technical description of the variety as grown at the Massachusetts Agricultural College, where it ripens the last week in August and the first week in September.

Fruit, Form irregular, round, oblate; size, large, 41x42mm; *Cavity*, small rounded.; stem, short slender; *Suture*, obscure; *Apex*, round; *Color*, bright red, mottled; *Dots*, Two kinds, yellow; bloom, heavy; *Skin*, thin; flesh, soft; *Stone*, medium size, oval, smooth, cling; *Flavor*, sweet and sprightly; quality, good to best; *Season*, just after Burbank; *Tree*, not hardy, poor grower.

General notes: A splendid fruit, but seems not to be a tree suited to this climate.

Massachusetts Agri'l. College.

F. A. WAUGH.

HERBERT RASPBERRY.

Keep your eye on this variety. The editor of the *Nurseryman* has known it for a number of years, and his experience with it has impressed him very favorably. E. W. Barnes, Middle Hope, Orange Co., New York, is offering plants for sale.

WESTERN APPLE SEEDLINGS INJURED.

It has been estimated that the floods which visited Topeka and vicinity about the middle of September reduced the plant of apple seedling from 60 to 80 acres in extent. This should have a very appreciable influence upon the price of the product.

The Handling of Nursery Stock.

A VALUABLE SYMPOSIUM ADVICE BY EXPERIENCED MEN.

The following questions were asked of a number of nurserymen. This was not with the expectation of bringing out new information, but rather to review and refresh our memories on well known principles.

1. In the course of handling nursery stock, when does it receive most injury, and what are the commoner causes of injury?

2. What classes of stock require most care in handling?

3. What influence has careless handling and packing upon the nursery business.

4. What general suggestions have you to offer for the good of the trade on the digging, handling and packing of nursery stock.

AN EVERGREEN SPECIALIST.

1. Poor digging. Mutilating roots and branches. Letting lay in sun and wind after digging, and storing in cold storage before the wood is well ripened.

2. Evergreens, both conifers and broad leaved. They carry the same amount of foliage when dormant as when in the growing state, and must have circulation of air in packing case. Consequently cannot be packed as closely as dormant deciduous stock.

3. About the same as a dishonest tree peddler in either case the buyer gets discouraged and will not try again.

4. More care should be used in packing material and the proper placing of it. Too much chaff and rotted straw is being used, fully as much being put among the tops as among the roots by some packers. Result, heated stock in ten days, stock should be well ripened before going into cold storage. Hand stripped stock shrivels badly, and tips of branches die as buds are not matured.

Waukegan, Ill.

THOS. H. DOUGLAS

FROM THE STANDPOINT OF THE GROWER OF ORNAMENTALS.

In handling of nursery stock, a great deal of injury is received during the digging and shipping season by exposing the trees unnecessarily long to the sun and wind. Some exposure is of course unavoidable, but it ought to be as short as possible, and when brought to the packing shed the trees ought to be well watered and puddled just before being packed. The best way to avoid unnecessary exposure is to heel in such trees, which can not be brought to the packing shed at once, at the block, where they were dug and where they will remain, ready to be pulled out and loaded on the wagon at the next opportunity. This is most necessary with evergreens, and when these are loaded on the wagon, they must lay so that the roots are inward and the tops outward in order that the latter protect the roots from the sun and wind.

The packing of trees is a most important feature, and ought to be done by men, who understand it well. Poor packing often ruins trees. Of trees most sensitive to exposure are firs, hemlocks, magnolias, tulip trees, chestnut trees, cherry trees.

West Chester, Pa.

GEO. ACHELIS

ADVICE FROM VETERANS IN THE BUSINESS.

1. At the time of digging when the roots are cut too short and badly bruised and broken. When it is left exposed in the fields too long before hauled to the packing shed.

2. Evergreens, cherries, chestnuts, roses, etc.

3. It leads to a general idea that the business is not well managed in other departments as carelessness in packing should never be permitted.

4. In digging save all the roots possible, being careful not to bruise or break them. Care should be used not to leave exposed in the field too long before being hauled to the packing shed. In packing see that plenty of wet material is used at the sides, top, bottom and end, as these are the places where the drying out occurs.

West Chester, Pa.

HOOPES BRO. & THOMAS.

USE SPECIAL CARE IN BOXING.

1. By leaving stock exposed in the field after digging before it is collected and brought to the packing house; unnecessary exposure by allowing it to lie around the packing house or grounds before packing;

crowding the roots against the end of the box with no packing material to protect them from drying out in transportation: cheap, thin lumber used in packing cases.

2. Evergreens and herbaceous perennials. The roots of evergreen trees cannot stand exposure, and be made to grow with any degree of success.

3. It tends to lessen the confidence of the buying public and nurserymen in general. Nearly all other commodities are carefully put up before being shipped.

4. Have only the best of tools with which to dig the stock and insist on their being properly used. If for any reason, stock cannot be packed immediately, heel it in carefully or place in a storage cellar; judgment in the use of packing material. Use strong lumber and box, and do not over load them. The boxes used by most nurserymen will not stand transportation without breaking to pieces.

North Abington, Mass.

W. H. WYMAN.

PERSONAL SUPERVISION NECESSARY.

1. Where nursery stock is handled on business methods by competent and experienced employees, we do not know of its suffering any injury. We endeavor to so handle our stock that loss or injury but seldom occur.

2. While all classes of nursery stock should be carefully handled, the loss to evergreens if improperly exposed to the sun or allowed to dry out, is probably the most injurious.

3. It has the tendency to injure the business, and cause customers to be unduly skeptical, in their purchases, and exacting in their requirements. It has the effect to ultimately lessen the demand, one or two unsuccessful plantings are apt to discourage the average planter.

4. Nothing new to suggest, except that the nurseryman should so conduct his business as to secure the same careful care and attention in digging and shipping his products as should have been given in their growth and propagation. Careful digging, care to prevent exposure to the sun or winds, rapid transit to the packing house, up-to-date packing cases, boxes or crates, and an abundant supply of packing material, either moss or excelsior.

Morrisville, Pa.

WM. H. MOON.

GUARD EVERGREENS AND ROSES.

1. (a) Exposure between time of digging and packing.
- (b) Careless digging by mutilation of roots.
- (c) Exposure of roots to sun and wind.
- (d) Uneven distribution of packing material.
2. Roses and evergreens and larger deciduous trees.
3. It tends to lessen trade because of discouragement of buyers, due to failure of trees.

4. Keep roots covered from moment they are dug until heeled in. Be careful that packing material be evenly distributed among the roots, not simply between bundles of trees, but at top of roots, as well as bottom.

Tarrytown, N. Y.

S. G. HARRIS.

FROM AN EXPERT IN THE HANDLING OF BROAD LEAVED EVERGREENS. STUDY NEEDS OF EACH SPECIES.

One of the commonest causes of injury to nursery stock is the carelessness in protecting it, from the time that it is dug until it gets to the packers. Stock should be carefully covered and protected from the moment it is dug until it is carefully packed in the boxes. Too frequently, trees and shrubs are allowed to lay without covering, and the sun and winds very quickly damage the roots.

Second—It seems to us that evergreens and hard wooded deciduous trees, and possibly a few of the perennials, require the most careful handling. Evergreens must not be allowed to dry out. Hard wooded deciduous trees seem to be affected more by careless handling than soft wooded and rapid growing sorts, and in packing, quite a number of perennials must have very careful treatment, as some sorts rot off very easily when provided with too much moisture, and then again, all perennials will damage very quickly if they are not packed sufficiently moist, so that it is necessary for the packing foreman to study the different lines, and pack according to the needs of each variety.

Third—We do not know that careless packing and handling has any influence on the nursery business in general, but we can easily see where it effects very seriously the nursery which is at fault. Certainly no customer will return with a second order to the nurseryman who has either dug or packed his order in a careless manner.

Fourth—A vital need is more care in digging stock to secure all the roots. It does not make any difference how hard pushed the nurseryman may be, every customer's order should have individual and careful attention. When a man buys a tree or a block, he wants all the roots that the tree is carrying with it, and too frequently hard digging by untrained labor leaves a large portion of the roots behind.

Packing should receive most careful attention. We very often get shipments, practically dried out. The main reason seems to be that the proper packing materials are not used. Straw seems to enter largely into the packing composition of most nurseries, and we even find wheat and rye straw, neither of which will absorb and hold the moisture as readily as oat straw, and we very frequently find an entire absence of moss. Some packages have come to us packed entirely in excelsior, but the best packing is that which comprises oat straw, fine excelsior and moss, or oat straw and moss. We think that straw and moss packing is even better than all moss.

Chestnut Hill, Pa.

WM. WARNER HARPER.

WATCH WITH TWO EYES AND "SOMETHING TO BOOT."

Regarding the "Handling and packing of nursery stock," would say that *eternal vigilance* sums up the whole proposition. From the time the digger or spade goes under the trees it is a question of watching every move; putting in charge of the work experienced men and then watching the experienced men with two or four pairs of experienced eyes, and on occasion, using vigorously an experienced boot.

ALABAMA NURSERY COMPANY.

NOTE:—It depends largely on what sort of men are employed. We should not always expect in return for fair wages, good labor and "something to boot."—Ed.

COLONIST RATES.

To Pacific Coast points, via Wabash Railroad, \$42.50. Low rates to intermediate points. On sale Sept. 15th to Oct. 31st. For full information see your local ticket agent or write R. F. Kelley, G. A. P. D., or James Gass, N. Y. S. P. A. Wabash R. R., 287 Main Street, Buffalo-N. Y.

PERSONAL AND GENERAL.

Rochester has been visited by quite a number of the brethren during the month.

Messrs. George and Dayton, of the Storrs, Harrison Co., Painesville, Ohio, called on Western New York and Rochester nurserymen early in September. They reported a good year with excellent fall prospects.

Mr. A. Willis, of Ottawa, Kansas, represented the American Association of Nurserymen at the meeting of the American Pomological Society in Kansas City, Sept. 19 to 21.

Orlando Harrison, of Harrison's Nurseries, Berlin, Md., called on his friends in New York, about the middle of last month.

Mr. H. J. Hunter, nurseryman for the city parks of Detroit, spent some time among Rochester growers last month, looking up stock for the Detroit parks. Mr. Hunter is a former Rochesterian, and renewed many old associations. At one time he was an employee of Ellwanger & Barry.

The National Nut-Growers' Association has decided to postpone the annual convention till late fall or early winter. It was called for Dallas, Texas, Oct. 25 to 27. Yellow fever in part of the nut-growing territory is cause of postponement.

OREGON NURSERY COMPANY.

The Morgan Advertising Agency, Grand Rapids, Mich., has ceased business, and is endeavoring to effect a settlement with its creditors on the basis of sixty cents on the dollar.

The Trade Paper Advertising Agency have asked for a receiver, to be appointed to wind up the affairs of the company.

Fairmont Nursery Co., Fairmont, Minn., has been incorporated with B. E. St. John, President; Victor St. John, Vice-President, and Nina St. John, Sec'y-Treas.

CATALOGUES RECEIVED.

General catalogue of Peonies No. 15, A. Dessert à Chenoneaux, France.

Specimen evergreens for August and September planting. Fall 1905.

Thomas Meehan & Sons, Inc., Dreshertown, Pa., an attractive booklet, showing excellent illustrations of fine types of broad leaf and coniferous evergreens.

T. S. Hubbard, & Co., Fredonia, N. Y. Wholesale price list.

Correspondence.

THE SEASON IN ILLINOIS.

We have had one of the best growing seasons ever known. Plenty of heat and plenty of rain. Growth of all kinds is very soft, but we are having quite cool nights and heavy dews, so I hope things will ripen well. We have been shipping evergreens for the past three weeks. Outlook for fall sales very cheering. So far sales have been few in number, but large in amounts. We sell very little as a rule before Oct. 1st, so feel quite happy over outlook. We have a very large stock (possibly 50,000) Russian olives, very fine. Can afford to sell them at \$10.00 per thousand. Just to emphasize our great growing season—we got our seed corn from Northern Iowa. Stalks are 10 to 12 ft. high, ears even with my head.

Waukegan, Ill.

THOMAS H. DOUGLAS.

PROSPECTS GOOD AT VINCENNES, IND.

The season has been very wet with us, especially so since June 20th. Notwithstanding that fact and the weeds resulting, we have secured a good growth on all of our stock, and it will be up to our usual standard. Sales thus far have been good, and the outlook is for a good fall trade.

The supply of stock is about the same as usual at this point. A few more Cherry than usual are being budded. The number budded were less than expected because the stand of stocks was not very good.

The apple crop in this section is very poor, though the quality of the fruit is fair. Prices are high so the grower will get something for his labor.

H. M. SIMPSON & SONS.

HO! FOR TEXAS.

The program committee of the American Association of Nurserymen are taking the preliminary steps in the interest of the Dallas meeting in 1906. They have written Prof. Luther Burbank, and Prof. E. J. Wickson, of California, inviting them to be present and address the Association. Prof. Wickson has accepted the invitation and signified his intention to be present, but as yet Mr. Burbank has not accepted, but it is hoped he may yet do so.

The other committees of the Texas State Nurserymen's Association are also active in the incipient steps for the Texas Convention, and it is believed that a good time will be in store for all who attend.

Sherman, Texas.

JOHN S. KERR.

PLAN FOR TEXAS.

"I am glad to know the Texans have taken hold so earnestly thus early in the season as mentioned in your former letter, and I have no doubt about our having a good-sized and enthusiastic attendance. In fact, those who are willing to go out of the constricted limits, in which some of our associates expect us to move, have enthusiasm and will take it along with them to Texas or any other place.

JOHN C. CHASE.

A LINE FROM PRESIDENT ALBERTSON.

TRANSPORTATION—LEGISLATION.

In a recent communication to THE NATIONAL NURSERYMAN, President Albertson has the following to say which will be read with interest by our members.

"We hope to be able to get a satisfactory audience with the Official Classification Committee and secure some valuable concessions there. The concessions in the West I am confident will prove of much help to the nurserymen. By the way, we have an order for one car of goods now on which the saving in freight by the ruling of the Western Committee, at their July meeting, will be over \$60.00. Another party reported to me a car on which he would have saved \$24.00 had the ruling been made earlier, so you see these are not small matters.

We are also trying to shape matters for an appearance before the Southern Committee. But one great trouble is going to be the shifting of this work from one to another each year as the membership of the Committees change, not only in transportation, but in other departments, especially legislation. What the Nurserymen's Association really needs is a good all around man to act as assistant to the President, and *ex-officio* member of the different committees, to give his entire time to this work. If such a man could be found, and was supported by the members of the Association and their committees, a work of almost inestimable value could be done for the nursery business.

We are also trying to arrange matters to take up the legislative question in the different states that have passed unfavorable laws, or laws that are a burden to the nursery business. It has been suggested by Mr. Watrous that we have a delegate or representative attend the annual meeting of the State Entomologist, and there present the frame-work of a uniform law, and, if possible, enlist their aid in the different states. My idea has been that the legislative committee should formulate the frame-work of a law then and this matter be taken up by the nurserymen in the different states, with a view of securing some uniformity; also eliminating the objectionable features, and giving a law that would enable the nurserymen to go ahead with their business without having to employ a lawyer or two to keep them posted as to the red tape necessary to do business in the different states. It seems to me Mr. Watrous's suggestion is a good one, and that these two questions (legislation and transportation) are of most vital interest to the Association.

I would like the views of the members of the Association on these points."

EMERY ALBERTSON.

NOTE:—There is no question about the importance of these subjects. What we want is a full discussion and suggestions as to how the interests of nurserymen may be furthered in these particulars. —Ed.

FUMIGATION OF NURSERY STOCK.

[Abstract of address before the Southern Nurserymen's Association at Norfolk, Va.]

Unless nurserymen attend very carefully to the details of handling their nursery stock from the time it is dug, until it is delivered to the customer, it is liable to serious injury, such as results from exposure to the sun, drying winds, freezing, etc. When such injury is noticed, it is sometimes charged to the effect of fumigation. The writer's attention has been called to such injuries a number of times during the past few years, and in almost every case he was able to trace the injury to some of the causes mentioned above, yet it has been difficult in some cases to convince the nurseryman that this injury was not caused by fumigation.

Entomologists generally, have recognized the effectiveness of fumigation and also the fact that well matured nursery stock is not liable to injury if it is properly fumigated, yet, from the above, you will see that much has been charged to fumigation that was really due to other causes. Because of these facts some experiments were undertaken the fall of 1904, to obtain reliable data on the effects of fumigation.

A special fumigating house containing 150 cubic feet of air space was built for experimental purposes early in the Fall of 1904, and experimental work was begun about the middle of October, continuing on to the 1st of November. At this time in the vicinity of Richmond, most of the two-year apple, and also the peach stock was fairly well matured. Some one-year apple stock was, however, a little green, the tips of the limbs being somewhat soft and tender.

Some of the stock was fumigated under ordinary conditions, while some lots were sprinkled with water, and in other lots the roots were cut to note the effect of the gas on freshly cut surfaces. The potassium cyanide used was 98% pure, and the sulphuric acid was also of high grade.

All stock in these tests was exposed to the gas for a period of 40 minutes, after which time the door was opened and the room aired for 10 minutes. The stock was then removed and healed into moist soil.

Quite a good deal of the apple stock fumigated at the time consisted of one year buds, about $\frac{5}{8}$ -inch caliper, and 4 to 6 feet high. The charge used in fumigating this apple stock varied from 1 oz. to 100 cu. ft. of air space to 1 oz. to 25 cu. ft., yet even with the latter charge, which is four times the strength generally recommended for fumigating nursery stock, no injury was noted, except to the very tender tips, then only in a very few cases where the stock had set up a secondary growth.

About the same conditions governed in the fumigation of the peach and two-year apple stock, on none of which any injury was noted.

Pear seedlings were fumigated also, and in this work the charge ranged from 1 oz. of potassium cyanide to 50 cu. ft. of air space up to the strength of 1 oz. to 15 cu. ft. The latter you will note is almost seven times the ordinary strength, yet we were unable to find a single tree that appeared to have been injured by this treatment.

All of the trees mentioned above, except a few that were injured in handling, grew very nicely in the spring and are now in fine condition.

Trees were held with this fumigated lots without any treatment whatever, and as all were planted together in the Spring, a good opportunity was afforded for comparison. In no cases, however, did the fumigated trees fail to show as good growth or a less healthy condition than the unfumigated ones.

Because of these facts, we have concluded that the injury often attributed to fumigation is due to some other cause. One of the most fruitful causes in the opinion of the writer, is the digging of nursery stock before it is mature. Stock in this condition is much more liable to winter killing, and if fumigated with the ordinary strength of gas the tips of the twigs may be injured to some extent.

In order to test the circulation of the gas in a house filled with nursery stock, some three-year apple trees with a considerable coating of San Jose scale on them were put in opposite corners of a fumigating house that was 10 ft. wide and about 16 ft. in length. This house had only one point for the generation of gas, which was near one side and the gas was put in through a small opening at this point. The infested trees were first placed in opposite corners of this large room and other nursery stock was then stacked as closely as possible about it until the house was entirely full. The ordinary charge of one oz. to each 100 cu. ft. of air space was then placed in a single jar as mentioned above. There were seven lots placed in a similar manner at different times. In three cases out of the seven, living San Jose scale were quite abundant when the trees were examined the first of July, and there were a few on another lot. No living San Jose scale could be found on the other tree lots.

This is, in the opinion of the writer, conclusive evidence that fumigation will not be effective unless good opportunity is given for the circulation of the gas to all portions of the room. Nurserymen should be careful, especially in a large house to set a jar with the proper proportion of chemicals so that there will not be more than 5 ft. from the generating jar to the farthest corner of the room. Besides this, an aisle should be left from the jar the entire length of the room.

While nurserymen as a rule are careful in their work, some of these details may be neglected in the rush of the digging season, and the writer wishes to emphasize the importance of attending *strictly* to the fumigation of nursery stock. We are confident that fumigation will not be effective unless these details are given careful attention. While our experiments appear to prove that fumigation is effective under proper conditions they seem also to prove that stock that is properly matured is not at all likely to be injured by fumigating it.

J. L. PHILLIPS,

Blacksburg, Va.

State Entomologist,

CHARLTON'S NEW GRAPE.

The National Nurseryman acknowledges the receipt of a fine sample of one of Mr. John Charlton's new creations. This is in the form of his new pear "Rochester". This pear received honorable mention by the committee on "New Fruits of the American Pomological Society at the Boston meeting." The pear is of Beurre d'Anjou parentage which it resembles somewhat in form and color but it is much earlier and of excellent quality. As a plant breeder Mr. Charlton is making an impress upon American Pomology.

THE SPEER GRAFTING MACHINE.

It is rather surprising that the grafting machine is not more generally used in this country. Many practical men pronounce it thoroughly feasible. Our own experience with the first machine placed on the market nearly twenty years ago was most encouraging. In our opinion there is no reason why this machine should not be used as freely in root grafting apple as mortising machines are employed in planing mills.

Success in root grafting depends upon the opposition of the cam between layers of stock and scion. This is the principle, aside from this the operation is purely mechanical. In the Speer machine the splice is made with a sliding motion of the knife so that the tissues are neither torn or bruised. By sorting scions and stocks as to size very neat joints can be made. But of course the main point is the labor saving and this to nurserymen is most important. We believe that E. C. Mendenhall of Kimmunity, Ill., has a good thing.

GUSTAVUS LEGG of Buford, Georgia, died February 16 aged 72 years. Mr. Legg was not only a prominent nurseryman. He served in the State legislature of Alabama in 1878 and 1879.

October Offerings

Try the Leedle Floral Company, Springfield, O., for a full line of roses.

Dreer's fall trade list is very full in the line of perennials and herbaceous plants.

Forest tree seedlings are offered in large quantities by the German Nurseries, Beatrice, Neb.

Apple seedlings in wholesale quantities are found at F. W. Watson & Co.'s place, Topeka, Kansas.

The real thing in peach seed and peach seedlings is found at the Austin Nursery, Austin, Texas.

The Shawnee Nursery Company, Topeka, Kansas, report a fine stock of apple trees and apple stocks.

H. C. Clark, Dansville, N. Y., have a fine lot of home grown Mahalebs and European plums.

Write James M. Kennedy, Dansville, N. Y., for Japan and European plums, standard and dwarf pears.

Barbier & Co., Orleans, France, are in market with large collections of ornamentals, also a heavy stock of fruit stocks.

C. C. Abel & Co., 110 Broad St., New York, are agents for the well known firm of P. Sebire & Son, Ussy, Calvados, France.

The Geo. Peters Nursery Company, of Troy, Ohio, are offering a full line of general nursery stock to the wholesale trade.

The Burnham-Hitchings-Pearson Co., of New York, are now ready to execute greenhouse construction orders on short notice.

California privet and Carolina poplar are in great demand this year by parks and private planters. Josiah A. Roberts, Malvern, Tenn.

The Harrisons' Nurseries, Berlin, Ind., offer an exceptionally well grown and smooth lot of apple trees. The stock is fine and prices right.

North Carolina is coming to the front as a peach pit state and John A. Young of Greensboro makes a specialty of collecting the right brand.

The umbrella tree is a great tree in the middle south. J. Van Rindley Nursery Co., Pomona, N. C., are specializing in this and other fine shade trees.

Geo. S. Josselyn, Fredonia, N. Y., has returned from his annual fishing trip and is now ready to enter orders for a few million grape vines and small fruit plants.

An experienced and industrious packing foreman in retail nursery packing department, is wanted by Thomas Meehan & Sons, Inc., Germantown, (Philadelphia), Pa.

Tree protectors not only guard against rabbits and mice but prevent sun scald and perhaps collar rot. They are sold by the Hart Pioneer Nurseries, Fort Scott, Kansas.

As usual, H. M. Simpson & Sons, Vincennes, Ind., in this issue of the NURSERYMAN announce a thrifty stock of Cherry, Peach and Apple seedlings; also Kieffer standard pears, one and two year.

Mr. Carl Sonderegger of Beatrice, Neb., called at this office early in September with his wife and daughter on their way home from a visit to Switzerland, the land of his birth. Mr. Sonderegger reports more recently that prospects for the autumn trade in Nebraska are gratifying.

James McHutchison, senior member of the firm of McHutchison & Co., New York City, New York, arrived on the 19th after a two months trip through Europe. During his absence he visited nearly all the large and important nursery centers on the other side. Mrs. Mac accompanied him on the trip and they both report a very enjoyable time and good weather during the whole of their journey.

—Mr. A. Willis of Ottawa, Kans. was in Lawrence the last days of September calling on Nurserymen of that vicinity.

—The 32nd annual meeting of the Horticultural Society of Southern Illinois will be held at Olney, Nov. 21-22, 1905. E. G. Mendenhall has been its secretary and treasurer for fifteen years.

—F. G. Sheffer wishes to inform his many friends in the nursery business that his address is Sarita, Cameron Co., Texas. He writes that they have very mild winters in the S. W. Texas, and considerable attention will be paid to the growing of citrus fruits. He would thank the nurserymen to send their trade lists to his new address, Sarita, Cameron Co., Texas.

SATISFACTORY OUTLOOK.

The season is opening up very busy with us. In addition to taking care of stock which we have in our home nursery, also in our branch nurseries at Wellington and Rock, Kansas, we are building a stone and brick cold storage building 80 feet square and 14 feet high, hence we shall have splendid facilities for handling our winter trade.

Our advertisement in your paper so far has been a paying investment. We feel inclined to keep our card there as it is a good publication for the nurserymen.

COOPER & MONCRIEF, Winfield, Kas.

MAGNIFICENT EXCURSION TENDERED TO THE AMERICAN POMOLOGICAL SOCIETY BY KANSAS CITY SOUTHERN AND FRISCO RAILROADS —NURSERYMEN WHO ATTENDED.

The editor of the NATIONAL NURSERYMAN is free to say that of the many excursions he has participated in none was more instructive and successful than that provided by the railroads mentioned above, to the members of the American Pomological Society, at the close of the recent Kansas City convention.

Sixty-five ladies and gentlemen, members of the society, comprised the party, and the train consisting of two Pullman's left Kansas City at eleven-thirty, on the night of the twenty-first, over the Kansas City Southern. The party was returned to Kansas City on the morning of the twenty-seventh, by the Frisco railroad.

Transportation was provided by the railway companies and entertainment by the citizens of the towns visited. The Pullman's furnished comfortable homes for the ladies and gentlemen making the tour.

Halts were made and the following towns on the Kansas City Southern Railway, were visited for the purpose of inspecting adjacent fruit regions: Neosho, Mo.; Gentry, Siloam Springs, Horatio, Mena and Ft. Smith, all in Arkansas.

On the Frisco Railway stops were made at Fayetteville, Rogers, Bentonville, Ark.; Springfield, Thayer, Brandsville, West Plains and Mountain Grove, Mo. At each of these places, on both roads, elaborate entertainment was provided. Carriage drives brought the travelers to the orchards and receptions made them acquainted with the people. The visitors were profoundly impressed with the evidence of substantial progress, and the great fruit growing possibilities of this ozark region of Missouri and Arkansas.

NURSERYMEN PRESENT.

Among the nurserymen who took in the excursion were J. Van Lindley, N. C., Jesse Butterfield, Mo., E. J. Holman, Kansas, Wild Bros., Missouri, Geo. Holmar and Fred. Dixon, Kansas.

The party represented twenty-five states, from New York to New Mexico and South Dakota to North Carolina. Mr. L. A. Goodman, president-elect of the American Pomological Society, was indefatigable in his efforts to make everything run smoothly, and it is needless to add that he was eminently successful.

THE ROBINSON NURSERIES.

ANOTHER WHOLESALE AND RETAIL NURSERY FOR LAWRENCE, KANSAS.

That Lawrence is fast becoming the nursery center of the West, has often been mentioned by the World. There are now ten or more nurseries doing business from this city, the latest of the number being The Robinson Nurseries, owned and managed by R. B. Robinson.

Mr. Robinson has had ten years' experience in growing nursery stock. The first five years were spent in working for others and the last five in growing stock for himself. For the past five years he has been wholesaling stock, and last spring he opened a retail business in Baldwin, Kan. The rapid growth of the retail department has forced him to make Lawrence headquarters, although he will continue to grow stock both at Lawrence and at Baldwin.

Mr. Robinson has rented the front suite of offices over the Hiawatha Cafe and will be open for business this week. Mr. Robinson will go after business in earnest and will undoubtedly meet with continued success.—*Clippings from the Daily World.*

GO AS YOU PLEASE.

Lake or rail in either direction—between Detroit and Buffalo. If your ticket reads via the Michigan Central, Grand Trunk or Wabash Railways in either direction between Detroit and Buffalo, it is available for transportation via the D. & B. Line and you can enjoy the delights of a lake ride.

Send two cent stamp for illustrated pamphlet.

Address D. & B. Line, Detroit, Mich.

THE WABASH PATRONIZED BY AMERICAN POMOLOGICAL DELEGATES.

The Wabash proved to be the popular road for eastern delegates attending the pomological convention at Kansas City. This road was fortunate in escaping "washouts" and "tie ups" during the heavy rains which immediately preceded the meeting and which shut out many who attempted to come in by other roads from the south and west.

DO YOU WANT

Apple Seedlings

OR

Japanese Pear Seedlings?

We do not grow **MORE** than all others.
We care **WELL** for what we do grow.
Write us for prices, and if you want to
see fine seedling ask for samples.

200,000 2 yr. Apples

As fine a block as there is growing in the
West.

ALL LEADING SORTS

NORTH TOPEKA NURSERIES

A. L. BROOKE & CO., Proprietors

North Topeka and Grantville, Kansas

We have to Offer the Following Stock Well Graded and
up to Our Usual High Standard:

Apple Seedlings. Apple Grafts. Forest Tree Seedlings, including Black and Honey Larsh, Mulberry, Ash, Catalpa, Box Elder and Russian Olive Shade Trees.

Carolina Poplar (fine lot), Box Elder, Maple Ash, Russian Olive, also Evergreens, Strawberry Plants, Raspberry, Rhubarb and Asparagus. Get our prices.

J. A. GAGE, Beatrice, Neb.

WANTED—To sell a few shares of the capital stock of
Giles County Nursery Co. Paid 14 % dividend last year.
Reason for selling party has gone into another business, and
desires to sell cheap. Address

R. O. LAMAR, Manager,
Lynnville, Tenn.

WANTED—Retailer desires to contract with western grower to furnish stock and advance money to pay commissions, etc. Address
Retailer B., % National Nurseryman.



Tree Protectors

75c. per 100. \$5 per 1000

Send for samples and testimonials. Do not wait until rabbits and mice ruin your trees. **Write Today.**

HART PIONEER NURSERIES

Box 27, FORT SCOTT, KANS.

Forest Tree Seedlings

We offer for Fall or Spring delivery a large stock of Forest Tree Seedlings, all nursery grown, well rooted and well graded.

BLACK. LOCUST 8-12, 12-18, 18-24, and 24-36 inch grades.

HONEY LOCUST 8-10 inch grades.

HARDY CATALPA 8-12, 12-18, 18-24 and 24-36 inch grades.

RUSS. MULBERRY 8-12, 12-18, 18-24 inch, 2-3 and 3-4 foot grades.

ASH (white) 8-12, 12-18, 18-24 and 24-36 inch grades.

BOX ELDER 8-10 inch grades.

WHITE ELM 8-12, 12-18 and 18-24 inch grades.

Also Butternut and Persimmon seedlings, large shade trees and flowering shrubs. Prices will be right; we make them ourselves.

GERMAN NURSERIES,

Carl Sonderegger, Prop., Beatrice, Neb.

H. J. Weber & Sons Nursery Co.,

NURSERY, MO.

GROWERS OF GENERAL NURSERY STOCK.

Have to offer for Fall 1905 and Spring 1906 a complete line of Fruit and Ornamental Trees, Shrubs, Vines, Roses, (own roots), etc., etc.

Send us your want list for prices. Trade-list will be ready early in September.

CORRESPONDENCE SOLICITED.



Nursery Stock ^{OF ALL KINDS} **At Wholesale**

Send us a list of your wants for prices. We will save you money.

AGENTS WANTED EVERYWHERE.

HART PIONEER NURSERIES

Box 27

FORT SCOTT, KANS.

1,000,000 PEACH TREES

Smooth, clean, well grown two year old trees budded on seedlings grown from natural seed collected in this vicinity, which is entirely free from "Yellow's" and all disease.

50,000,000 STRAWBERRY PLANTS

And all kinds nursery stock grown on virgin soil at small cost to be sold at closest prices. Send your want list for prices.

Dept. M.

CONTINENTAL PLANT CO., Kittrell, N. C.

ESTABLISHED 1868

F. W. Meneray Crescent Nursery Co.

(INCORPORATED)

COUNCIL BLUFFS, IOWA.

Native Ameracana Plum Seedlings

The only good Grafting and Budding Stock for Ameracana Plums. Cherry, Plum, Peach and Apple Trees, Grape and small fruits of all kinds.

Large growers of Pæonies, 290 named Varieties

Hardy Shrubs and Ornamentals. Car lots a specialty.

SPECIAL PRICES

in carload lots for early orders on

Apple

2 and 3 years
Leading
Varieties

Cherry

2 years old
Leading
Varieties

Peach

2 years old
Leading
Varieties

We also have a complete line of nursery stock including Pear, Plum, Grape, Current, Gooseberry, Small Fruits, Hardy Shrubs, Roses, Ornamental Trees, Etc, Etc.

J. K. HENBY & SON,

Greenfield, - - - Indiana.

An Old Established Nursery In Pennsylvania

FOR SALE

At very reasonable terms. Address A. G., care THE NATIONAL NURSERYMAN PUBLISHING CO., Rochester, N. Y.

TEAS WEEPING MULBERRIES

Fine Specimens. Texas Umbrella Chinas,
Select Southwestern Trees, Fruits, etc.

COMMERCIAL NURSERY & ORCHARD CO.

(Formerly Kerr's Nursery)

Sherman, Texas.

NATURAL PEACH
FRENCH CRAB
QUINCE, PEAR
CHERRY AND PLUM

FRUIT SEEDS

FRUIT STOCKS

APPLE, WESTERN AND
PARADISE, MAZZARD
AND MAHALEB CHERRY
PEAR, QUINCE AND PLUM

The experienced grower knows the importance of ordering his requirements early. If you have not done so, order NOW. You may avert a disappointment. Yes, perhaps actual loss. Send for our Price List.

THOMAS MEEHAN & SONS, INC.
NURSERY ST., DRESHERTON, PA.

When writing to Advertisers mention The National Nurseryman.

Southern Nursery Company

WINCHESTER, - TENN.

FALL 1905 AND SPRING 1906

100,000 First-Class Peach, $\frac{3}{16}$ and up. Can furnish one-half Elberta if wanted; Salway, Carman, Crawford's Early, Crawford's Late, St. John, Alexander, Greensboro, Stump, Chairs Choice, Mt. Rose, Globe, Triumph.

20,000 Roses (own roots.) Heavy on Gen. Jack, Paul Neyron, Prince de Rohan, Marechal Neil, Solfaterre.

California Privet, 1 and 2 years old. Shade and Ornamental Trees.

Write for estimate on your list of wants.

Southern Nursery Company

WINCHESTER, - TENN.

Clematis and Roses

Are our specialties. We offer them to the trade at prices and grading that is right. Please write as we make special inducements on Jachmanni and Mad. Ed. Andre Clematis.

P. W. BUTLER & CO.

PENFIELD, N. Y.

BLACKBERRY ROOT CUTTING PLANTS

Largest and best stock in the country. Our Blackberry plants have the same mass of fibrous roots as our grape vines.

One year plants for late fall and spring shipment. Transplants for early fall. Send lists of wants for lowest prices.

T. S. HUBBARD, CO. Fredonia, N. Y.

We Offer for Fall Large Stock June Bud Peach and Plum

We also offer fine lot of Kansas grown 2-year Apple of assorted varieties, about 50,000 at very close prices F. O. B.

50,000 $\frac{3}{16}$ and up Kansas grown Apple Seedlings. A nice lot of 1-year Peach and Cherry. Also Southern Mountain natural Peach Seed for shipment from our Nurseries.

We offer Nurserymen and the trade inducements. Prices on Strawberry Plants June Buds and 1 year Peach. Write us.

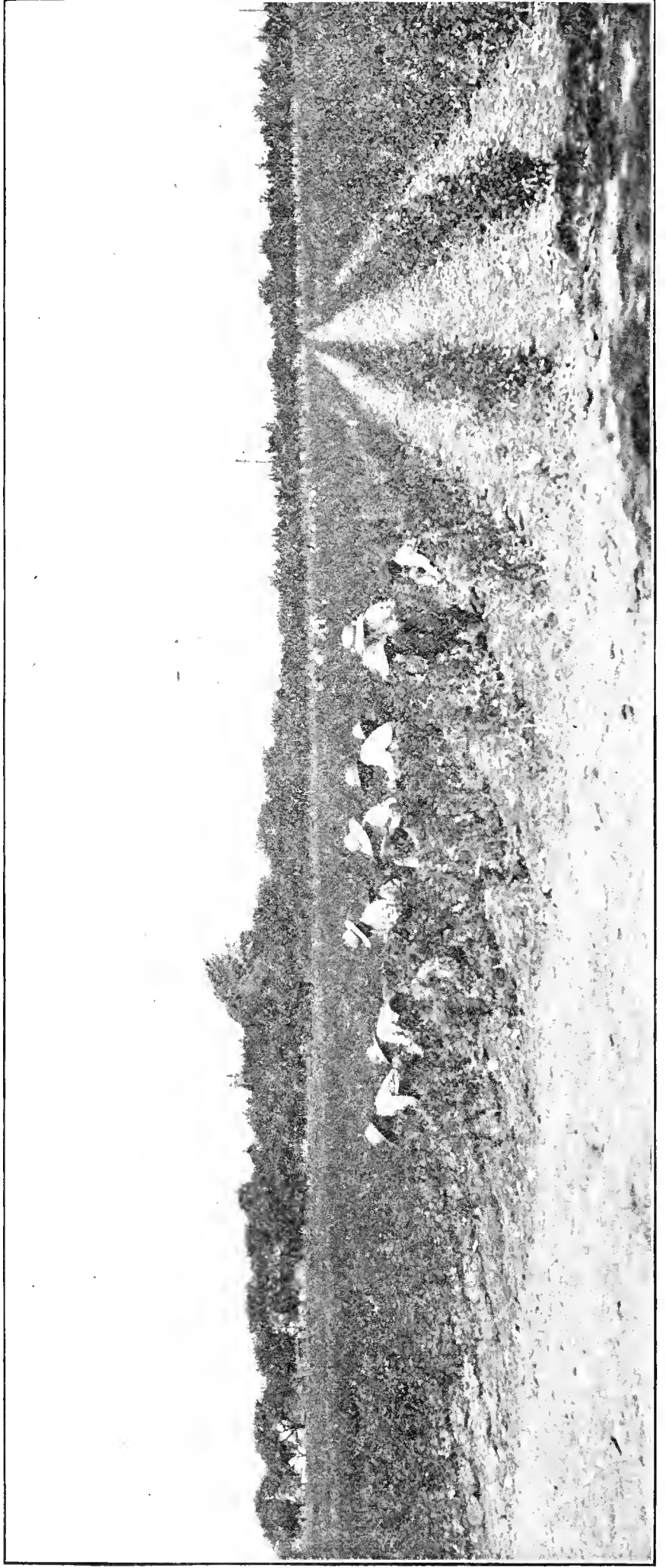
Chattanooga Nurseries

CHATTANOOGA, TENN.

When writing to Advertisers mention The National Nurseryman.



Where rows are measured by acres, showing other ornaments in the distance on the pleasant rolling ground.
W. & T. Smith Co., Geneva, N. Y.



A gang of budders at work in a block of plum stocks. W. & T. Smith Co., Geneva, N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., NOVEMBER, 1905.

No. 10.

The Wholesale Nursery of W. & T. Smith Co., Geneva, N. Y.

Specialists in Ornamentals

[Written and illustrated by the special correspondent of The National Nurseryman.]

The observant traveler in passing through a town or city soon learns to detect signs of the presence of progressive nurserymen. In driving through the streets of the city of Geneva, N. Y., evidence of culture and refinement is present to an unusual extent in the exterior decoration of the homes. Rarely does one find better specimens of ornamental trees and

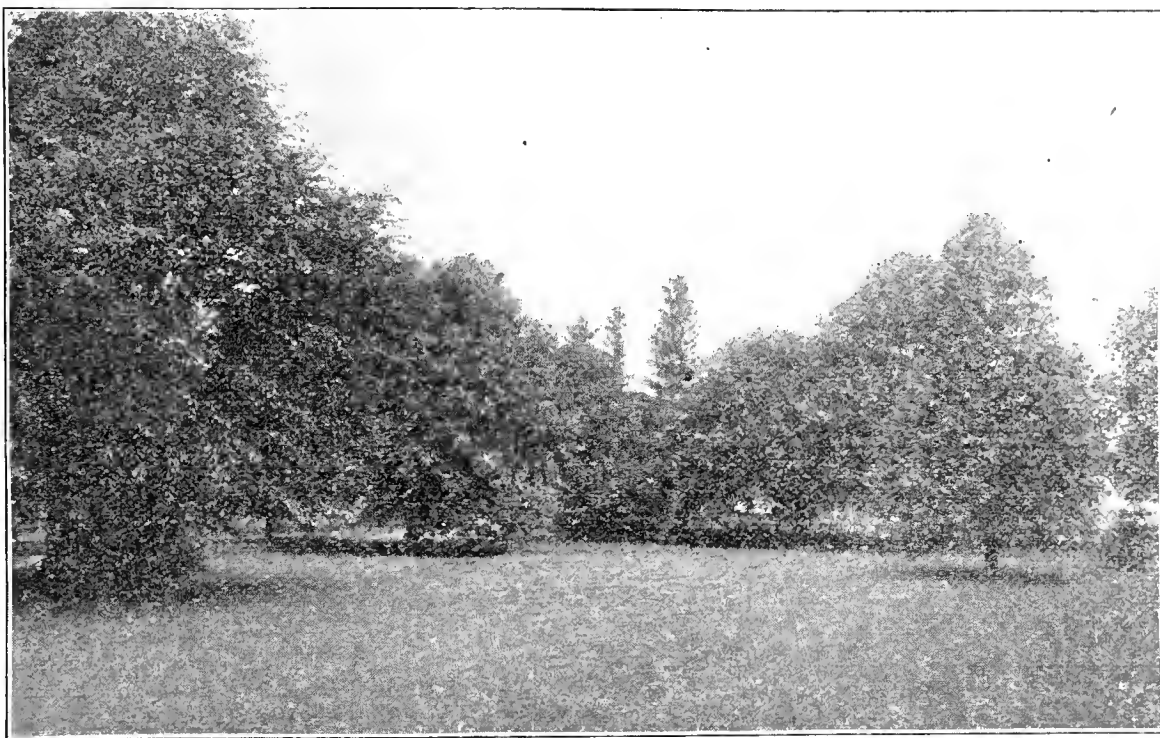
shrubs than upon the lawns of some of the leading citizens. Geneva has long been noted as a great nursery center. Situated at the head of that beautiful sheet of water, Lake Seneca, it is admirably located as to soil and topography for the growing of high grade nursery products. The nursery companies of this region have undoubtedly contributed much to the fame of the town. But the richness of the farming

country in the immediate vicinity contributes its share to the substantial standing of the region as a stable financial community. It was here that the first tile draining done in North America took place, and the Johnson farm, on which the drains were laid, is recognized today among the noted farms of the section.

ASSOCIATED WITH THE DEVELOPMENT OF GENEVA.

A company which has done a great deal to bring credit and add dignity to the business of the nurseryman generally, and of this region in particular, is W. & T. Smith Co. This firm was organized by the brothers William and Thomas Smith, almost sixty years ago. They came from England and began in a small way, as did many nurseryman in the then comparatively new country. Reliable methods and skill in the growing of stock made the business grow and prosper. The original small area gradually extended, new lines of stock were added, a steady growth took place until at the present time fully 700 acres of ground are devoted to the growing of a line of nurserymen's and planters' requisites, which includes everything that can be grown in the climate, and is particularly heavy in ornamental stock, especially the finer

lines, such as roses, and flowering shrubs. The visitor is strongly impressed with the great masses of usual and unusual ornamental shrubs appearing here and there on the nursery grounds. At the time of our visit large blocks of hydrangeas were in bloom, and made striking by handsome features on the landscape.



A pleasant vista on the home grounds of W. & T. Smith Co., Geneva, N. Y. High class ornamentals artistically grouped.

ROSES MEASURED BY ACRES.

The rose department as intimated above, is an exceedingly important one. Stock is grown on own roots, and is budded in large quantities. As in the case of the other ornamentals, one finds blocks of four or five acres in extent, including many thousands of plants, of a single variety not at all uncommon; and in looking at this almost countless variety of ornamentals, one is

impressed with the difficulties of the business of the nurseryman of today as compared with the grower of fifty years ago. The wholesaler, like W. & T. Smith Co., must now, not grow merely samples of each kind, but each kind must be grown in blocks to satisfy in short notice the orders of the retailers.

ORNAMENTAL TREES IN QUANTITY AND VARIETY.

One sees here, too, fine examples of the best types of ornamental trees suitable for park, street and lawn planting. Among the maples are many beautiful forms of the colored leaved varieties. These are introductions of the last twenty-five or thirty years into this country, and are just now being recognized as important additions to color schemes in lawn planting. The bronzy leaf Schwedler, Reitenbach and their kin are strong, free growers, and add desirable variety to the tints of summer foliage, when usually everything is of almost the same shade of green. The Messrs. Smith have long been interested in this particular line of ornamentals, and have made a selection of their own which is now on the market under the name of GENEVA PURPLE. This form attracted our attention particularly, and appeared to us as

being a specially desirable type. Another ornamental tree which we noted as being a leader, and which is rather rare in the East is the Bolleana Poplar. This is essentially a pyramidal form of the Silver Poplar of Europe, but it does not emphasize the objectionable sprouting habits of that variety. One might characterize it as a Silver Leaf Lombardy, nearly as vigorous and rapid in growth. In certain parts of Europe this is grown extensively and has many qualities of beauty which place it in advance of the Lombardy.

VARIATIONS IN ORNAMENTAL TREES.

The writer was greatly interested to observe that attention was being given to propagating DESIRABLE STRAINS of park and shade trees. As a rule, when a man buys American elm, he understands that the trees have been grown from seed and if he is acquainted with the habits of seedling elm he will know that in the lot purchased there will appear great differences in habit of growth and general appearance. These differences are of small moment to many people and many institutions, but there are times and places when the purchaser desires a strictly uniform product. This can only be secured by a rigid selection from a large number of seedlings, or by budding from definite types. The Messrs. Smith have adopted the latter plan, and with apparently excellent results. A block of one year old elms, budded from the typical vase shaped top elm, presented in nursery row a remarkably uniform appearance; quite different from the growth made by seedlings. These trees will have special value for avenue planting, for parks, where particularly good specimens are required, and for other prominent positions where strict uniformity is desired.

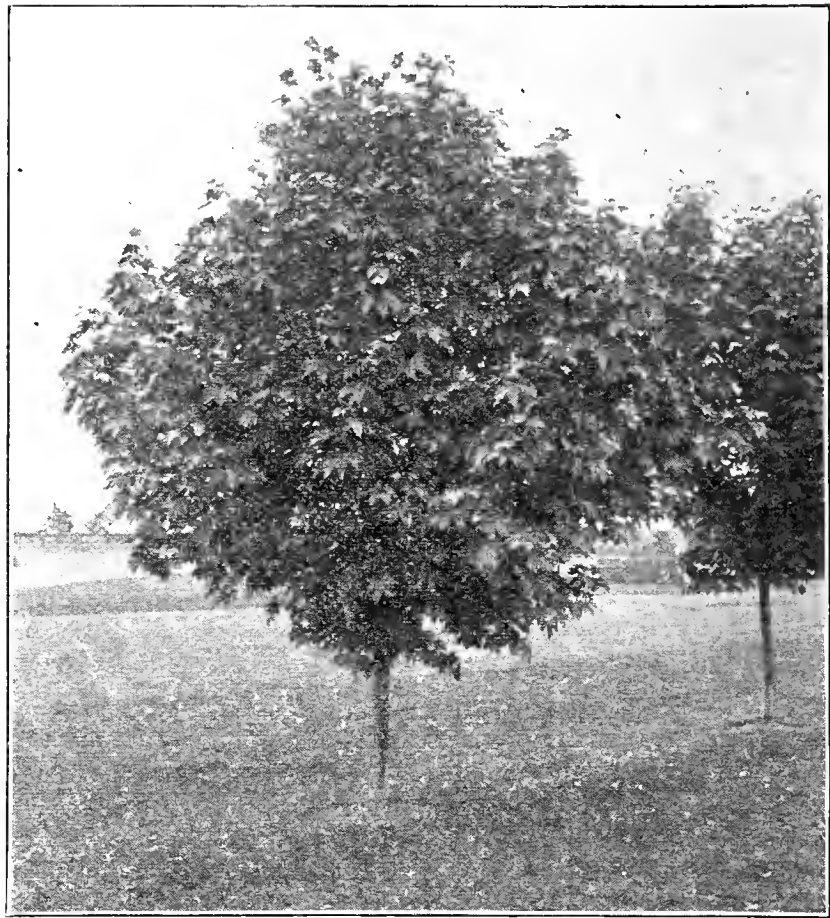
Another tree with which this firm is working and propagating the same way is the Norway maple. In this tree we have two fairly well marked types. One makes a broad globular top, tending as the trees grow older to become flat. The other is oval with a more strictly upright habit. This is the better form of the two,



This photograph taken on a windy day does not do justice to a handsome block of American elm all budded from a single type, thus ensuring absolute uniformity in shape and habit of growth.



Where feathery masses of arborvitae abound. Some handsome hedges of this tree are to be found in Central New York.



The Geneva Purple Maple, selected and propagated and introduced by W. & T. Smith Co., Geneva, N. Y.

less aggressive as a shade tree and longer lived. In this case the ordinary Norway seedlings are used for stocks and on them are budded the desired types. We mention this departure as a kind of effort well worthy of being imitated. Of course the grower must first understand his varieties and must know what a good type is

FRUIT TREES.

It must not be concluded that ornamental stock occupies the grounds to the exclusion of regular lines of fruit trees. These are by no means neglected. Immense blocks of plums,

pears, cherries, apples, and peaches, are to be seen on every hand. All nurserymen understand that it is impracticable to grow fruit trees continuously in blocks by themselves, and the ornamentals in other secluded blocks by themselves. The skillful nursery manager realizes the necessity of rotating his nursery crops in the manner practiced by the skillful farmer. When this principle is carried out, the otherwise solid masses of certain classes of fruits and ornamentals are broken up, as they are in this nursery. The soil of this region is particularly adapted to the growing of a sturdy, strong, well ripened class of fruits. The growth is not soft and sappy, but firm and well ripened.

AN EXCLUSIVELY WHOLESALE BUSINESS.

The business of this company is exclusively wholesale, and is now largely in the hands of Mr. Theo. J. Smith. The senior

member, Mr. William Smith, though an octogenarian and with a few years to spare, is still active and interested.

ATTRACTIVE OFFICES.

It is gratifying to note that a large number of nurserymen are taking pains to surround their offices, the center of their business activity, with well and artistically planted grounds. The lawn about the office of Messrs. W. & T. Smith is particularly attractive. Here the visitor may see mature specimens of trees, that perhaps he has only read about or seen in the form of small nursery specimens. Conifers of rare sorts, maples, cut leaved birches, and weeping trees carefully trained are found properly arranged and harmoniously grouped. It seems to us that one of the best local advertisements a firm can have is the judicious planting of its own grounds in an artistic manner of this kind.

PRESIDENT ALBERTSON'S LETTER.

The time seems now opportune for striking for uniformity in transportation and inspection laws. Our association should be strongly represented at Washington. Mr. Albertson sets for the case in emphatic terms in another column. The funds of the association are exhausted. If the work is forwarded it must be done by individual effort and assistance. Contributions to support the work of the committees have been called for. Let those who can afford it follow the lead of the \$50.00 subscriber, but there are many who cannot do as much. Let it be understood that the \$5.00 of one man or company may be as much for them as the \$50.00 of the other. Let all support and all will be interested. It is everybody's business in the best meaning of the phrase.

CALIFORNIA PEOPLE HOLD CONVENTION TO URGE GOVERNMENT TO IRRIGATE SACRAMENTO VALLEY.

Californians in large numbers, recently met at Sacramento to memorialize the Government to extend the benefits of the National Reclamation Act to the Sacramento Valley.



The tree on the left is the type of Norway Maple from which they are budding their blocks; the tree on the right is a Fern Leaf Linden, a most effective lawn tree.

The result of the meeting was a strong declaration for united effort by the people of the entire Valley to bring about the early construction of some portion of what the officials of the Reclamation Service call "the great Sacramento Valley Irrigation Project." A resolution was unanimously adopted, pledging the united support of the entire Valley to such locality as may be selected by engineers of the Reclamation Service as the proper place of beginning.

ELLWANGER & BARRY DONATE PEARS TO STUDENTS.

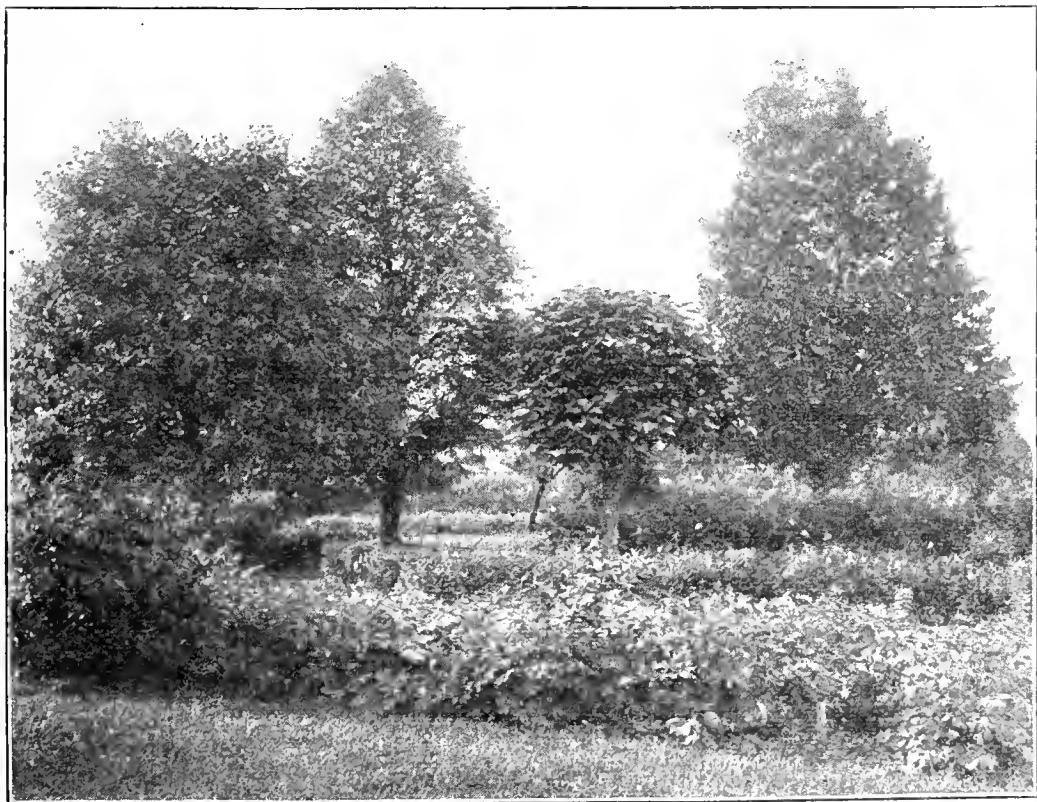
Cornell students in the College of Agriculture are making a serious study of the subject of systematic pomology.

They have been greatly aided in their studies of the pear by a generous contribution of fifty varieties, for examination and description, by Ellwanger & Barry, Rochester, N. Y., and Ithaca.

F. A.

The semi-centennial of the Illinois Horticultural Society will occur at Champaign, Dec. 12 to 13. Special features will be introduced in the program on this occasion.

In the November numbers of The Youth's Companion is begun a new serial story by Henry Gardner Hunting. "The Heart of Tilley." The prominent characters in it are a railroad engineer and his motherless daughter, and incidentally the story contains vivid pictures of railroad and art student life in and near Chicago. A distinguished contributor to The Companion's November issues is Madame Sembrich, who chats of her meetings with European sovereigns. Three stories of the Pawnees, by May Roberts Clark, and fully twenty more complete stories are among the other conspicuous features of these November issues of The Companion.



A somewhat mature specimen of *Catalpa bungei*, surrounded by herbaceous planting on the grounds of W. & T. Smith Co., Geneva, N. Y.

Fruit and Plant Notes.

CRANBERRY PIPPIN. (APPLE.)

Form, oblate, conical; size, medium to large; color, yellow, overlaid with stripes and blotches; size, medium; skin, roughish and blotched with russet; cavity, deep, round smooth; stem, $\frac{3}{4}$ to 1-inch curved; basin, shallow, ridged; calyx, small, closed or open; flesh, white; quality, subacid, mild, lacking flavor, poor; texture, fibrous; core, small, closed; seed, small, brown; season, midwinter or later.

GENERAL NOTES.—Originated in eastern New York, in the Hudson River section, Ben Davis type. Very close to that variety in many characteristics specimen received from Craighurst, Ont., Dec. 2, '02.

Described by John Craig. Date, December 2, '02.

THE PEACH CROP.

The East, especially New England, has rejoiced in an abundant crop of peaches. In Connecticut growers were very busy during the month of September harvesting their extensive crops. The dry weather, however, of August and the early part of September checked the growth of the fruit, and the subsequent wet weather injured its quality somewhat. As a rule, eastern peaches were not up to the standard of quality. This was to be charged to the peculiarities of the weather.

BEN DAVIS UNDER FIRE.

The old question of the value of Ben Davis as a commercial variety was very adroitly brought to the fore at the Kansas City meeting of the

American Pomological Society by the newspaper instincts of one of the reporters of a Kansas City paper. During the course of an address of welcome Mayor Neff referred in jocular terms to the quality of the Ben Davis, stating that while he was an inveterate fruit eater, yet he always "shied" when the Ben Davis appeared before him. Very much was made out of this joking remark, and some of the champions of this variety in the middle West took it seriously to heart. This was

probably due to the fact that the headlines of the article, credited the Pomological Society with fathering the sentiment expressed by Mayor Neff. The newspaper discussion gave rise to a resolution by one of the Kansas members, re-instating Ben Davis in public favor, and committing the Pomological Society to a sponsorship. This kind of action is entirely unknown to American pomological councils, and was promptly side-tracked. We notice that a good deal has been made out of the incident by the Packer and similar papers, who drew into the controversy the name of Mr. Louis Erb, of Missouri, and others. Mr. Erb has taken up the cudgels in defense of Ben Davis, and has cleared his skirts of all suspicion of any weakening in his estimation of the merits of that variety.

The truth of the matter is that the American Pomological Society publishes a catalogue of fruits, in which each variety is given a place as to adaptation and quality. This catalogue is open to all persons who may wish to consult it; therefore, the society does not feel called upon to take up a single variety and discuss it by itself. Such discussions are usually unprofitable.

BREEDING HARDY APPLES FOR THE CANADIAN NORTH-WEST—SUBSTANTIAL PROGRESS.

A very interesting and apparently most valuable line of plant breeding was inaugurated by the Canadian Experiment Farms in 1887, and is

now approaching the period of fruition. The great wheat regions of Manitoba and the territories to the north and west were practically without a variety of apple hardy enough to live and bear fruit. Some exceptions to this statement might be made in behalf of the more favored portions of Manitoba, but it is true of the extensive region westward. In the testing work of the fruit stations it was discovered that the only form of apple which succeeded was the Berry Crab of Siberia. Seed of this was obtained from the Botanic Gardens of St. Petersburg, and young trees were grown and distributed in large quantities. Subsequent experiments showed that it was hardy. The next step was to improve it. This was done by crossing with cultivated and hardy forms of the apple. The results of these crosses are that about eight hundred varieties have been produced, many of which have much promise. The fruit of the Berry Crab is berry like in size. The fruit of the hybrids is often intermediate between the small crab and the apple. The director of the Canadian Experimental Farms says that there have been obtained up to the present time twenty varieties, which from their superior size and quality may be regarded as useful for domestic purposes and deserving of more extended trial.

The fruit of all these crosses appears to ripen early, and though crab like in quality, is appreciated where better varieties can not be grown. The interesting thing about it is that many of them are apparently as hardy as the *Pyrus baccata*, which as stated before, is a standard of hardiness. Stock of some of the leading varieties of these new seedlings have been sent to the principal nurseries in Canada, and in this way they are being

introduced to commerce. Of course the great wheat growing section of the northwest will never be noted for fruit, but a few fruit trees around every homestead will do much towards making the place homelike, and will vastly increase the comforts of the dweller on the prairies.

W. COLPITTS.

Alberta.

THE RUSSIAN MULBERRY.

We could not help being struck with the thought that this furnished a fine lot of bird food during the

last week of June and the forepart of July. In fact, one or two trees under observation, fruited throughout the entire month of July. The amount of fruit and its habit of fruiting makes one quite enthusiastic over this tree as an addition to the home garden of the amateur in the northern part of the country. Some years ago 25 or 30 Russian mulberries were planted in various parts of the Cornell University Campus. These trees have given just as many varieties of fruit as there were individual trees. The color has varied from pinkish white to almost if not full dead black, and in flavor, from a dead sweet to a brisk, lively acid.

There was hardly a day during July that you could not pick—or perhaps one should say shake, because shaking is the better way—a quart of berries from a tree in the horticultural grounds. This particular tree bore fruit larger than an ancient Briton blackberry. The berries are juicy and too sweet to be palatable. Another tree near by, bore fruit of really excellent quality—fruit that one could eat with much satisfaction off the tree, but perhaps too sweet for cooking. Of course one of the weak points of all the mulberries is that the fruit is almost untransportable. Its tenderness of skin makes it almost impossible to carry any it distance and offer it in presentable form. Then again, the thin stem forms a fibrous core in the fruit which is an objectionable feature.

The writer recalls very vividly a pomological epoch of 20 years ago in which the mulberry figured as a prominent factor. It was about the



Cutleaf Birch and Weigela. Both in strong demand and are freely propagated.
W. & T. Smith Co., Geneva, N. Y.

time that mulberries introduced into Nebraska and Kansas by the Mennonites from eastern Russia, were beginning to fruit. These trees attracted the attention of wide awake Nebraska nurserymen who seized the opportunity and sold all over the country large numbers of seedling Russian mulberries. The tree is one of the easiest of our fruit trees to grow from seed, consequently they could be put upon the market very cheaply. By the time however, they reached the planter through the medium of the tree missionary, they had grown to be valuable stock. Many of these trees are a disappointment because the hopes of the planters were far above and beyond possible realization. Here and there however, some of these seedlings of special merit are bringing satisfaction and pleasure to those who have planted them.

The Russian Mulberry is not a fraud in all respects. It has many good points but it should not be classed with cherries or blackberries, nor be regarded as a staple fruit. Many foreigners appreciate it and use it. It is hardly fair to call it a "poor man's fruit," but if bearing under adverse circumstances and under neglect would qualify it to carry this title then it rightfully belongs to it.

There is now a good work to be done by someone in connection with the selection of important and desirable strains of this type of mulberry. The great variation exhibited by seedlings makes the work of selection all the more promising. As a northern fruit it is entirely worthy. Let us not deery or fail to give proper credit to the Russian Mulberry, or to those who have labored to introduce it.

Ithaca. W. H.

PEAR ON APPLE.

G. E. Heaton, of Paso Robles, Cal., reports that he has had excellent success in top grafting a pear tree with apples. These were set in the spring of 1903, and bore a good crop of fruit in 1905. The scions were set in the ordinary way by sawing off branches 1½ to 2 inches in diameter, and setting two grafts in each. The graft took well and the growth was vigorous. Who else has had the experience in this kind of top-working?

O'MARA VS. BURBANKITIS.

Mr. Patrick O'Mara of the Peter Henderson Co., has developed a lively discussion in the Florist's Exchange by failing to eulogize the work of Burbank in the high strain ordinarily adopted by Californians and some easterners who have visited Mr. Burbank's plant breeding grounds. Mr. O'Mara was taken to task by Mr. Burpee for his lack of appreciation, and at the last meeting of the New York Florists' Club, states his position, producing evidence in support of his former assertions leaving the matter very comfortably disposed so far as he is concerned. There is no doubt that in recent times there has developed an unfortunate habit of placing the work of Mr. Burbank upon a pedestal far above that of his compeers. It is a question of giving credit consistently and justly, and not merely blowing a trumpet. A writer has stated that many of our periodicals have been seized with a severe attack of Burbankitis, and there is some truth in this. We feel quite sure that Mr. Burbank himself has no pleasure in reading such garbled, extravagant statements, and claims regarding his accomplishments and his expectations; and this whole highfalution-periodical-write-up business must bring him much vexation of spirit.

Doings of Societies.

NEW YORK FEDERATION OF STATE AGRICULTURAL SOCIETIES.

An important organization was effected at Cornell University a short time since, when representatives of the various agricultural interests of the state met and formed an association for the purpose of co-operating in those things which make for the upbuilding and the advancement of agricultural education. Delegates of most associations in the state were present, and the following officers were elected for the ensuing year. M. H. Ohlin, President; T. B. Wilson, Secretary; John Hall, Treasurer; executive committee; E. B. Norris, E. P. Powell, F. Marks, Gilbert M. Tueker. This organization will watch with a jealous eye all movements influencing or pertaining to the promotion of agricultural knowledge in the Empire State.

CHRYSANTHEMUM SOCIETY OF AMERICA.

The Chrysanthemum Society of America will hold its annual meeting in Philadelphia, November 7 to 11. The Society will meet with the Pennsylvania Horticultural Society in the fine hall owned by the latter association. An excellent premium list has been arranged.

AMERICAN POMOLOGICAL SOCIETY.

MEDALS FOR NURSERYMEN.

One of the finest collections of pears ever shown in the west, was that of Ellwanger & Barry, of Rochester, N. Y., at Kansas City meeting of the American Pomological Society. One hundred and twenty-nine varieties were exhibited. The committee on awards recognized the exhibit by giving it a Wilder silver medal.

Another exhibit striking on account of the handsomely colored specimens of apples was shown by Stark Bros., of Louisiana, Mo. This exhibit received a bronze medal as an award of merit.

PLUMS IN THE CANADIAN NIAGARA DISTRICT.

It appears that orchardists in this region are replacing their domestica plums with Japanese varieties. The domestica plum has not been profitable for a number of years,

and there has been a gradual movement on the part of fruit growers to take them out and plant other types. In New York State a number of growers change them over by top grafting, but in Ontario the changes are effected by replanting. Lombard, which at one time was the standard commercial sort in the Niagara peninsula, is giving way to red June, Burbank and Satsuma. Whether this change is wise will be demonstrated by the experience of the next four or five years. In our opinion it is an open question. When we consider the susceptibility of Japanese plums to San José scale, and their naturally short life it places a large interrogation point after this project.

Mr. E. G. Mendenhall, Kinmundy, Ill., is Secretary-Treasurer of the Southern Illinois Horticultural Society. Write him for information regarding the forthcoming meeting at Olney. A full schedule of the meetings of the state and district Horticultural Societies is given in each number of the *Country Gentleman*. An excellent feature.



The beautiful Silver Spruce with stately Norways in the Background.
W. & T. Smith Co., Geneva, N. Y.

Trade Jottings.

North Texas is in reasonably good condition. Cotton, the money crop, is opening late, but promises a better yield than was expected, though by no means a full crop.

The Nurserymen of this section, are prosperous. Owing to good rains stock is in good condition for digging. Stock is now moving and sales have been heavy. The next sixty days will show a large movement of nursery stock.

Sherman, Texas.

JNO. S. KERR.

AMONG THE IMPORTERS.

"The business of the season averaged very fairly with an undertone of conservatism in the nursery line. Collections were quite satisfactory with only very few exceptions, showing that the trade must have been quite prosperous of late. I think the demand for ornamentals is a growing one."

New York.

AUGUST ROELKER & SON.

Gentlemen—Our import business, which has been averaging during the past year, about the same as in former years.

AUG. RHOTERT.

New York.

[Information furnished by correspondents for which the NATIONAL NURSERYMAN PUBLISHING Co. accepts no responsibility.]

A QUESTION OF VERACITY.

NATIONAL NURSERYMAN.

Gentlemen—In reply to the article in the October number of the Nurseryman, furnished you by G. D. McKisson, I wish to state that I established the Fairmont Nursery in 1895, and used this name, and the name of the Fairmont Nursery and Greenhouse Company for some time after taking G. D. McKisson in with me (Oct. 1900). Previous to this he was a jobbing agent, buying his nursery stock wherever he saw fit. At the time of my taking him in as a partner, he did not put in a dollar or buy any of the nursery stock that I had growing at that time. He never at any time owned any of my stock, buildings, or land that the nursery stock grew upon, and does not own any land in this county unless he has acquired same very lately. His statement in regard to the ratings in Dunn & Bradstreet I pronounce absolutely false. As he has attacked my financial standing, I refer the buying and selling trade to the following parties in regard to paying my bills: First National Bank and Martin County National Bank, Fairmont, Minn.; C. G. Patten & Son, and the Sherman Nursery Co., of Charles City, Iowa; D. Hill, Dundee, Ill.; Vaughn's Seed Store, Chicago, Ill.; and Storrs & Harrison of Painsville, Ohio.

All of these I did business with long before I took G. D. McKisson in with me. I dislike very much to rush into print with my business affairs, and would not in this case if Mr. McKisson had not published this libel in regard to my responsibility.

In conclusion, will say that I am doing business at the old place, 504 St. John St., Fairmont, Minnesota, and am not worrying about the "proceedings now pending."

Fairmont, Minn.

B. E. ST. JOHN.

Personal and General.

NURSERYMEN CANDIDATES FOR STATE LEGISLATURES.

Nurserymen are coming forward as legislators. We have noted the nomination of Orlando Harrison in Maryland whose election is conceded and now we are informed that our progressive nurseryman, Elmer Sherwood, of Odessa, Schuyler county, N. Y., is a candidate for the state legislature on the Republican ticket. Mr. Sherwood is an all around business man and farmer. He conducts an extensive nursery business,

is a large farmer, and a handler of farm products. Mr. Sherwood's election seems quite assured.

THE PORTLAND EXPOSITION.

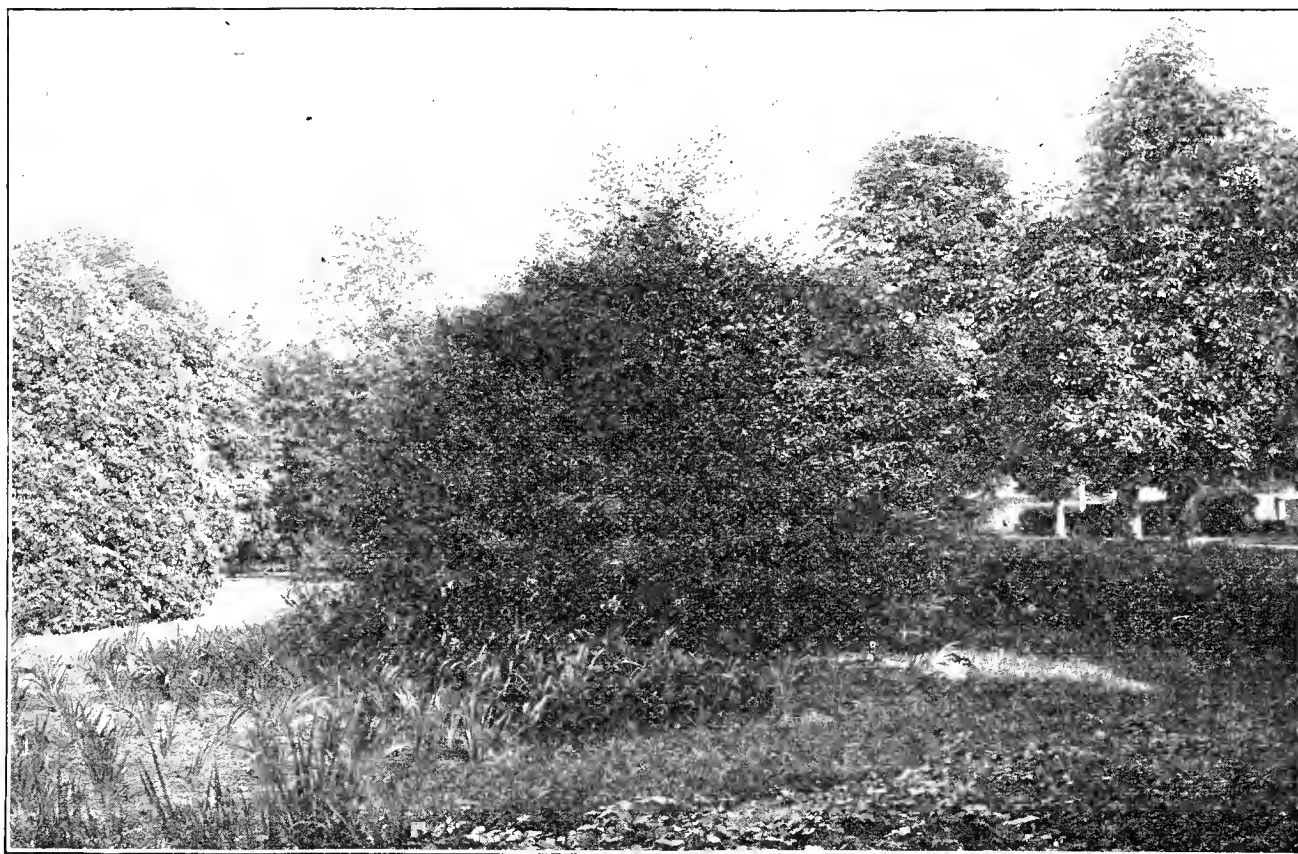
The Lewis & Clark centennial has come to a close, and there is reason for jubilation all around. Most people who went to the neat, attractive little fair came away well satisfied, and more important than all, the men who hold stock in the concern have received a dividend which is the next thing to phenomenal and unheard of. The attendance was exceptionally

and unexpectantly large. Approximately 2,500,000 people visited the show. The circular letter says that the admissions and money collected from other sources of revenue will enable the directors to pay a fair percentage of the stock subscription.

A New Jersey man who recently lost two prize shade trees through the leakage of gas from the street main, has recovered \$50 from the gas company in lieu of damage sustained.

HONORING EMINENT POMOLOGISTS.

It is common knowledge in horticultural circles, at least should be, that a movement is on foot to raise a fund for the purpose of erecting a suitable monument to the memory of Ephraim Bull, the originator and introducer of Concord grape. It is the accepted custom to eulogize men who have been prominent in letters, art, or in the industrial world; but how often men in relatively humble walks in life, who have done much more to minister to the material wants of the people at large, are overlooked or forgotten. Treasurer Richardson of the Massachusetts Horticultural Society, will act as receiver and custodian of a fund for the purpose noted above. It is not desired to erect anything pretentious or elaborate, but something appropriate and substantial should record the memory of a man who has given to the world such a valuable gift as this grape for the million.



A fine specimen of Cutleaved Beech is found on the home grounds of W. & T. Smith Co., Geneva, N. Y. It is flanked by Arborvitae and Cutleaf Maple.

Legislation.

UNIFORM STATE LEGISLATION REQUIRED—IMPORTANT MEETING OF STATE ENTOMOLOGISTS IN NOVEMBER.

At the meeting of the state entomologists and nursery inspectors in Washington, on the 13th and 14th of November, one of the important subjects to be discussed will be the feasibility of a uniform legislative enactment covering the inspection and interstate shipment of nursery stock. It seems to us that this is urgently needed. It is patent that the need of stringent laws against pernicious insects is not equally urgent in all states. For instance, in northern regions San José scale is not feared. Again root troubles are more or less confined to certain sections, oyster shell bark louse to others, yellows to peach growing states, and so on. While these facts are admitted, it does seem unnecessary to have such tremendous variations in the laws as exist at the present time. These work all kinds of hardships and real injury to the nurserymen. We are glad to note that President Albertson is considering this whole question very carefully, and that the nurserymen are likely to be represented in Washington at the forthcoming meeting of the entomologists. At the last annual meeting of the American Nurserymen's Association, the president was practically given carte blanche to proceed in legislative and transportation matters. He, however, feels that the question of finances is an important one, and steps of this kind should be carefully considered. Let all members consider these matters carefully and cooperate with the legislative committee in furthering this good work.

INSPECTION REGULATIONS IN LOUISIANA.

EDITOR NATIONAL NURSERYMAN.

Dear Sir—As this is the first season in which the inspection law of Louisiana has been in force, and as we do not wish nurserymen shipping into this State to experience any delay or annoyance, we would like to call attention in your columns to the fact that the Regulations of the Louisiana Crop Pest Commission require an official certificate of inspection attached to every box, bundle or package or nursery stock shipped into this State.

It is not necessary for nurserymen to secure official tags from us, but the certificate of inspection issued by the State Entomologist or other proper authority in each State will be all that is required.

WILMON NEWELL,

Secretary Crop Pest Commission of Louisiana.

Shreveport, La.

ORLANDO HARRISON FOR THE LEGISLATURE.

Another member of the nursery fraternity has his eye on a seat in the State Legislature. This gentleman is Mr. Orlando Harrison, of the firm of J. G. Harrison & Sons, Berlin, Md. Mr. Harrison's business experience and his municipal training as mayor of Berlin, will greatly assist him in such duties as may fall to his lot, if he is successful, as we hope he will be, in winning the contest in his home county. His election is assured, as he has been practically endorsed by both parties.

SPECIAL WINTER COURSE IN HORTICULTURE AT CORNELL.

The College of Agriculture of Cornell University is offering a special short course in horticulture for students who wish to give all their time to that branch. The course will begin at the same time as the general winter course, namely the first week of January, and will continue for

ten weeks. Among the subjects making up the course, are soils, farm chemistry, commercial and amateur fruit growing, truck gardening and floriculture. The promise of a heavy registration in this course is exceedingly bright.

FRUIT INSPECTION.

BY HON. E. D. SMITH, ONT.

EDITOR NATIONAL NURSERYMAN.

The "Fruit Marks Act." of Canada, has been the undoubted means of raising the standard of Canadian apples to a certain extent, though it is not being carried out very thoroughly. The difficulty in the Act is, that an Inspector in a distant part of the country may condemn apples that were perfectly sound and good when packed and shipped, placing a shipper at a very serious disadvantage and causing him very serious loss. It is impossible in the ordinary way of packing apples, for the owner to keep a close personal supervision over all the apples. It has seemed to me that there ought to be and could be means of having these apples examined before shipment where the shipper desires it, and is willing to pay for it. Under the present Act there is no means of getting apples inspected at the request of the owner. The Government Inspectors simply inspect where they like themselves. They act as detectives looking for fraud in a general way. I think the Act might be carried further and believe that a scheme could be worked out that would be satisfactory so that any shipper desiring to have a car of apples examined before shipping could do so.

There are many objections to this, but I think these objections could be overcome.

In regard to the nursery trade, there ought to be a good demand for apple trees as the prices being paid for apples this fall are extremely high.

Winona, Ont., Canada.

BUSINESS MOVEMENTS.

Peterson Bros., Cohasset, Mass., are organized to do a general florist and landscape gardening business.

The Cottage Gardens Co., Queens, N. Y., has recently been up against the Long Island Railroad Co. The latter was taking liberties with trees and shrubs on Mr. Ward's property. He promptly secured an injunction, which will prevent further destruction pending an investigation.

Texas. The Florist's Exchange reports that the Palestine Nursery Co., is planting a carload of seed at Palestine, Texas, the kind of seed not stated.

The Durant Nursery Co., of Durant, Tex., is improving its shipping facilities by building packing sheds and offices, and putting in a side track.

STANDARDS OF PURITY FOR FOOD PRODUCTS.

The association of official agricultural chemists of the United States has had under consideration by authorization of act of Congress, the establishment of standards of purity for food products. These standards will cover fruit products, edible vegetable oils, flavoring extracts and table salts. Not only will the standards of purity be considered, but the question of what shall be regarded as adulterations will be included in the schedule. Circulars are now being issued by the committee having this in charge, upon which criticisms and suggestions are requested. This is an important matter, and many nurserymen are directly or indirectly interested. All those who have any suggestions to make should write the chairman, William Frear, State College, Pa., asking for a copy of the schedule, so that they may be able to approach the question intelligently.

Caleb D. Sutton and Chas. W. Roess, of the Venango Nursery Co., Franklin, Pa., called on nurserymen in Rochester and Western New York last month. They report a good business.

The National Nurseryman

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., NOVEMBER, 1905.

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Editing Report—J. Horace McFarland, Harrisburg, Pa.; C. J. Maloy, Rochester, N. Y.; George C. Seager, Rochester, N. Y.

STATE AND DISTRICT ASSOCIATIONS.

AMERICAN NURSERYMEN'S PROTECTIVE ASSOCIATION—President, R. C. Berckmans, Augusta, Ga.; vice-president, A. L. Brooke, secretary, Thomas B. Meehan, Dreshertown, Pa.; treasurer, Peter Youngers. Meets annually in June.

NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phonton, O.; secretary, George C. Seager, Rochester, N. Y.; Meets annually in June.

AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

EASTERN ASSOCIATION OF NURSERYMEN—President, W. C. Barry, Rochester, N. Y.; secretary-treasurer, William Pitkin, Rochester, N. Y.; Meets annually in January.

WESTERN ASSOCIATION OF WHOLESALE NURSERYMEN—President, Peter Youngers, Geneva, Nebraska; vice-president, A. Willis, Ottawa, Kansas; secretary, D. J. Holman, Leavenworth, Kansas.

SOUTHERN NURSERYMEN'S ASSOCIATION—President, Orlando Harrison, Berlin, Md.; vice-president, John A. Young, Greensboro, N. C.; secretary-treasurer, Chas. T. Smith, Concord, Ga. Meets at Chattanooga, Tenn., third Wednesday in August, 1906.

SOUTHWESTERN NURSERYMEN'S ASSOCIATION—President, J. W. Preston, Kingfisher, Okl. Terr.; secretary, J. A. Taylor, Wynnewood, Ind. Terr.

TEXAS NURSERYMEN'S ASSOCIATION—President, E. W. Kirkpatrick, McKinney, Texas; vice-president, B. L. Adams, Bonham, Texas; secretary-treasurer, John S. Kerr, Sherman, Texas.

PACIFIC COAST ASSOCIATION OF NURSERYMEN—President, S. A. Miller, Milton, Ore.; secretary-treasurer, C. A. Tonneson, Tacoma, Wash. Meets annually in June.

PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

A few years ago an Illinois nurseryman, Mr. Cotta, made a specialty of propagating double worked trees. This was for the special purpose of meeting the climatic conditions of

DOUBLE WORKING.

northern Illinois, Wisconsin, and Iowa. Undoubtedly this was good work. But there are other reasons aside from climatic considerations why nurserymen should propagate trees in this way. Many of our best varieties are poor growers in nursery. Why not top work in nursery either by budding or grafting such varieties as King and Spitzenburgh, which on their own stocks are subject to cankerous troubles of the main branches and stem? We are of the opinion that there is an excellent field in this line of work. Let some nurseryman enter it. Let him grow a nice smooth line of Northern Spies to two year old, and then bud in the branches with Wagner, Boiken, King and Spitzenburgh. He will thus have not only a strong healthy stem, but also avoid many of the crotch difficulties which characterize some of the varieties mentioned. Other kinds that might be improved by this method are Newtown Pippin, and Maiden's Blush.

It is said that the first plantings of apple trees along the Ohio River and its tributaries were made by a philanthropic but remarkably eccentric individual, who hailed from New

THE PLANTINGS OF JOHNNY APPLESEED.

England. His name was John Chapman, but his sobriquet in the new West was Johnny Appleseed. It is recorded, that laden with apple seed he made annual pilgrimages at great personal discomfort and privation through parts of the then unexplored states of Indiana and Ohio, establishing here and there little gardens, planted with apple seed which he protected with rude brush fences against injury by deer and other wild animals. This work was carried on co-incidentally with the arrival of settlers into the new land, and these settlers were encouraged in every way to plant, and promote fruit culture. The Indiana meeting recalled the interesting though highly imaginative account of this strange man's life work in the story recently published under the name of "The Quest of John Chapman," by Dr. Newell Dwight Hillis. However, much or little of fact there may be about this man's life story, the glamour of sentimentality and tradition will always shroud it with a mantle of charity, which should act as an incentive for the promotion of similar works of enduring altruism.

California is making important progress in the control of injurious insects by the importation and establishment of forms parasitic upon these destructive types. California is

SUPPRESSION OF INSECTS BY NATURAL ENEMIES.

especially favored in this respect. Take the cottony cushion scale, for instance, one of the dangerous orchard pests—it is being restrained in an effective manner by a parasite, (*vedalia cardinalis*). The pernicious scale, San José scale, is also parasitized by a chalcid fly, to such an extent that it does not threaten the fruit interests of the South Pacific Coast in the manner in which the peach regions of the East are menaced. The latest move in this work of pitting insects against insect is the importation by the California expert, Mr. Compere, of a parasite for the purple scale. These were shipped recently

from West Australia, and arrived in California a short time ago. Care was taken to ship entire trees upon which the parasitized scales were abundant. An insectary, or insect breeding building, is to be erected under the direction of the horticultural commissioner, at San Francisco. Here predacious and beneficial insects will be propagated, and from this central point they will be distributed. This is a fundamental method of checking the inroads of enemies of the orchard. Somehow in the East our special natural friends have not been discovered, and therefore have not been cultivated to the same extent as in the fruit growing regions of the Pacific Coast.

How much harder than normal will a hardy stock make a tender scion? The experiences of the Ottawa Experiment Farm horticulturist is that the hardness of a tender variety is

INFLUENCE OF STOCK ON SCION.

increased very slightly, if at all, by grafting on a hardy stock. That is to say, its absolute ability to withstand cold seems to be increased very little. Over ninety varieties of apples have been topgrafted on so-called hardy stocks at Ottawa with the expectation that, while it was impossible to grow them on their own stocks, yet by this means they could be cultivated. The winter of 1903 came along, with particularly severe weather and wiped out a large proportion of these tender kinds. The dividing line between the hardy stock and the more or less tender scion was very clearly marked in most cases. For instance, a Northern Spy scion occupying half of the top on a Duchess stock, and which had grown for thirteen years in a healthy and normal manner, was killed exactly down to the point of union with the stock. The other half of the top of a strictly hardy variety was uninjured. A number of interesting cases of this kind occurred throughout the list. Of course this experiment does not answer the question as to whether the hardness of the tender variety was increased in any degree whatever, but it affords strong evidence that no material change in the constitution of the topgrafted form occurred.

The establishing of recognized and recognizable grades of fruit is a question which has agitated fruit growers and fruit handlers for some time. Some horticultural organizations

GRADING AND INSPECTING FRUIT—AN OPTIONAL LAW.

have been audacious enough to present schedules describing different grades. How much good these have done, it is impossible to surmise. The trouble with an established grade is that what might be recognized as a No. 1 Baldwin one year might be considerably above or below the mark the year following because seasons profoundly influence the size and appearance of fruit. Again it is difficult to make a definition so clear that its provisions cannot be evaded.

Canada successfully enforces an arbitrary inspection law as described in Mr. Smith's letter. All fruit exported to Britain or foreign countries must be inspected, and bear the government brand. An act of this kind would not meet the approval of the American elector, and the advisability of attempting to secure such an act could very properly be gravely questioned.

If compulsory inspection is out of the question, what shall we say of optional inspection? Why not establish definite grades and then ask the government to provide the machinery whereby official inspection could be secured and a government

brand obtained? Those who did not care for it need not bother about it. Let the opportunity be available, however, for the man who does wish to ship his goods under an authorized brand. This is merely in the form of a suggestion, and by way of introducing the subject for a discussion. What are the objections?

All nurserymen are agreed that the inspection laws governing the interstate shipment of nursery stock are in an exceedingly unsatisfactory condition. Why should a nurseryman be obliged to consult a schedule for each state to which he expects to send stock, in order to learn whether he must forward a certificate of inspection singly, in duplicate, or in triplicate, whether he must swear the stock was fumigated, whether he must pay an arbitrary license, or meet half a dozen other provisions concocted by narrow minded and one sided legislators?

The state entomologists and the state nursery inspectors should get together on this matter, find out what is reasonable and just, not simply what is absolutely ideal from the personal standpoint, for this is often impracticable, and then work with the nurserymen and other horticultural organizations for some uniformity of law. Reasonableness is bound to prevail, when men meet and discuss broad questions of this kind with calmness and deliberation. The present regulations of some states are not only unreasonable, but they will redound to the injury of the states themselves.

We are glad to know that the American Association of Nurserymen is likely to be represented by a good level head in the person of Captain Watrous, of Des Moines, at the coming meeting of the state entomologists and nursery inspectors in Washington this month. A conference of this kind can hardly fail of good results, and we are hopeful that this meeting will be the beginning of an important piece of legislation, which will remove onerous burdens from the shoulders of the nurserymen of the country.

NEW COMPANY ORGANIZED.

The Clinton Falls Nursery Co., Michigan, with a capital of \$150,000, has recently been incorporated by the following men: Thos. E. Cashman, M. R. Cashman, Jas. R. Laughlin, W. H. Hart, Nellie K. Cashman and John A. Cieszenske.

FOREIGN APPLE MARKETS.

Latest cable advices from the principal apple markets in England are very favorable. All the arrivals in good condition are selling promptly, and at very high prices. Red varieties are selling at prices that give nets from \$3 to \$4 a barrel. Here in Boston with some extra fine Kings, selling to give nets from \$3.75 to \$5.50. Greenings sold to give nets from \$2 to \$3.25. All markets are in good shape, Glasgow continuing to be somewhat better than other markets.

My latest mail advices (Sept. 23), state that in London, Nova Scotia apples, ex SS Florence sold to give nets for Gravensteins \$3 to \$4.25. Ribstons sold to give nets from \$4.75 to \$5.50, with the demand very good. No American apples were offering that week.

In Liverpool, New York state Baldwins were selling to give nets from \$2.50 to \$3.75. Imperials sold to give nets from \$3 to \$4.50. Kings from \$3.75 to \$5.50, and Greenings sold from \$2 to \$3.25. They continue to look for a very good demand for American and Canadian apples, and say after the 15th of October, all markets will have to depend entirely on fruit from this side.

GEO. A. COCHRANE.

—The Harrison & Sons Nurseries, Berlin, Md., have been visited by a great many prominent men this fall. A number of editors and agricultural writers were included in the procession of sightseers.

Among the Experiment Station Workers.

CALIFORNIA. The Legislature of this state has appropriated \$150,000 for the purchase and equipment of a university farm and agricultural school; \$30,000 for the investigation of plant diseases, \$20,000 for the investigation of pear and walnut blight, and diseases of grapes, in addition to \$10,000 more for various departments of the experiment station and college.

MINNESOTA. The Legislature of this state has granted to the College of Agriculture \$50,000 for additions to the main building, \$20,000 for the purchase of land and improvement of live stock, \$8,000 for plant breeding experiments, and \$5,000 for soil investigations.

PENNSYLVANIA. The Legislature of this state has given \$150,000 for the completion of the agricultural building, \$30,000 for the maintenance of agricultural courses, and \$10,000 for the support of the experiment station.

U. S. DEPARTMENT OF AGRICULTURE. Bulletin No. 61, of the Bureau of Plant Industry contains a discussion of the avocado (alligator pear) of Florida. The most important part of this bulletin is that which refers to the experience of growers like Mr. A. A. Boggs and others, who speak of its adaptation to different parts of the country. The pages on propagation are also interesting and valuable. The bulletin is by P. H. Rolfs, and may be had on application to the Division of Publications.

NEW YORK. Bulletin 267. This bulletin emphasizes the observation which has been frequently made that Paris green has considerable value as a fungicide in the treatment of potato blight as well as being an insecticide. It was estimated that its value as a fungicide was one-third as much as Bordeaux. Potatoes treated with Paris green in this way yielded forty-six bushels more per acre than other rows of the same variety untreated. Another conclusion drawn from the experiments outlined in this bulletin is that arsenite of soda should not be applied with Bordeaux mixture.

NEW YORK. Bulletin 265. This bulletin describes an interesting piece of work undertaken for the purpose of ascertaining the amount of nitrogen, phosphoric acid, potash, lime and magnesia used in one growing season by bearing fruit trees. The leading classes of fruits were studied, analyzing the fruit, leaves and new growth separately. The investigation showed that peach trees used the largest amounts of plant food, that apple and quince trees come second, while pear and plum trees come third. The proportion of plant food used, employing one pound of nitrogen as a basis for comparison, was found to be as follows:

Nitrogen.....	1. pound
Phosphoric acid.....	27. pound
Potash.....	1.14 pounds
Lime.....	1.35 pounds
Magnesia.....	45. pound

GEORGIA.—Bulletin No. 15, by Wilmon Newell, contains the results of an inquiry into the cyanide method of fumigating nursery stock. Mr. Newell attributes much of the unsatisfactory results of fumigation to the use of impure or adulterated cyanide.

U. S. DEPT. AGRICULTURE.—Bulletin No. 155, office of Experiment Station, is written by John Hamilton, and refers to the agricultural instruction for adults in the British Empire. It is quite a complete account of the various types of college extension efforts being put forth for the promotion of agriculture in the British Isles and colonies.

SOUTH CAROLINA.—Bulletin No. 109, by C. C. Newman, contains a descriptive list of apples which are supposed to be well adapted to the varying conditions of this State. The descriptions are supplemented by illustrations of each variety in cross section.

NORTH CAROLINA.—Mr. R. S. Woglum, of Cornell University, replaces Mr. F. Sherman as entomologist at this station.

The fumigation station operated by the Canadian Government at Niagara Falls, opens on Sept. 26, and will remain in operation until Dec. 8.

YEAR BOOK OF THE INTERNATIONAL APPLE SHIPPERS' ASSOCIATION.

We are in receipt of a copy of the proceedings of this association for 1905. It gives an account of the work of the association at its meeting in August of this year. We note that the report contains resolutions, the size of the standard barrel, the requirements for No. 1 apple, and No. 2 apples. It also recommends that the third day in October each year be recognized as apple day throughout the country. We suppose that this will be a public holiday, and will be devoted to the business of consuming apples. It is to be hoped that there will be a good supply of good varieties. While we are quite in sympathy with any reasonable means brought forward for the greater consumption of fruit, yet though we live in the East, we do not see the propriety of recommending one class of fruits to the exclusion of others. Why not have an orange day, a prune day, a peach day, and we are sure many people would vote for a strawberry day, especially if the strawberries were provided.

DOMINION FRUIT GROWERS CONFERENCE.

A conference of fruit growers of the Dominion of Canada is being talked about, and arrangements are practically completed for the holding of such a convention in Ottawa sometime during the winter of 1905-6. It is proposed at this meeting to organize a body of fruit growers, representing the various provincial organizations of the Dominion. The idea of such a central association is to act in a measure as a council of horticulture for the Dominion, to further legislative movements and other enterprises which demand co-operative action for their initiation.

NEW YORK STATE FRUIT GROWERS.

As usual there was keen competition at the New York State Fair for the prize offered the society which would show the largest and finest collection of fruit. Last year it was won by the Western New York Horticultural Society. This year the State Fruit Grower's Association was successful. The exhibits differed very little in quantity, and varied not at all in quality; but the State Fruit Growers spent some time and thought in the arrangement of their display. It was so disposed as to show the relationship of varieties. This was done by grouping the kinds that were known to have originated from the same strain, or whose appearance suggested similar origin. Such methods of displaying the fruit added very much to the educational value of the whole exhibit. The Western New York Society presented 2,702 plates of fruit; the Fruit Growers' Association showed 2,916 plates.

The Mississippi Valley Apple Growers' Association held a meeting in Quincy on Sept. 30. The principal speaker was Dr. Hall, of Aurora. President, C. H. Williamson, secretary, James Handly, both of Quincy, Ill.

AMERICAN CIVIC ASSOCIATION.

One of the important meetings of last month was that of the American Civic Association. This took place at Cleveland, October 4, 5 and 6. The work of this Association is most commendable, and at the same time exceedingly difficult. All movements which deal with things aside from money-making enterprises are hard to set in motion. This organization has for its object the improvement of country, village and city living, and largely from the aesthetic stand-points. Among its officers are men deeply interested in the welfare of the movement, and sincerely concerned in the beautifying of country and urban homes. The president of the society is J. Horace McFarland, of Harrisburg, the treasurer, William B. Howland, of New York, and the first vice-president, who by the way, is the working officer of the Association, is Clinton Rogers Woodruff, of Philadelphia. Mr. Harlan P. Kelsey was chairman of the nominating committee, and is an active member of this association.

Boston has a Co-operative Flower Growers' Association. It met for its annual dinner and general business meeting on October 27.

The Horticultural Society, of Chicago, will hold its annual chrysanthemum show in the Colosseum November 7 to 11. The general management of the exhibition has been placed in the hands of George Asmus, who in the past has given excellent satisfaction as manager-in-chief.

Quiz Column.

CLASSIFICATION OF DECIDUOUS CONIFERS.

How should deciduous conifers like *Larix Europea* and *Taxodium distichum* be classified? IMPORTER.

Ans. 1. *Larix Europea* would not be correctly classified as an evergreen seedling, as the Larch is not an evergreen. It would be properly classified as a deciduous seedling, or might be placed among ornamental trees but, as a rule, it is used more for forest planting than for ornamental work.

Philadelphia, Pa.

WM. WARNER HARPER.

Ans. 2. As *Larix Europea* is a deciduous Conifer, its seedlings could not be consistently classed under the head of evergreens. The same opinion would hold good for *Taxodium Distichum* or Southern Cypress, as well as *Ginkgo Biloba* or *Salisburia*, also *Glyptostrobus*; all of these being deciduous Conifers.

Augusta, Ga.

P. J. BERCKMANS.

Ans. 3. There seems to be no question in my mind but *Larix Europ* a seedlings and the Southern Cypress (*Taxodium distichum*) should be properly classed under the Dingley Tariff Bill as deciduous nursery stock, and should be dutiable at the rate of 25 per cent. ad valorem.

I base my opinion on the fact that the word evergreen is accepted botanically as a plant holding its leaves throughout the winter, or in other words, a tree or shrub plant that does not shed its foliage after the summer's growth is completed and the wood ripened up. If the Dingley Tariff Bill had specified Coniferae instead of using the word Evergreen that would have made these two plants dutiable at \$1.00 per thousand, because they are Conifers without being evergreen.

I do not see that there is the slightest opportunity for difference of opinion in this manner. The Tariff schedule expressly states evergreens.

Dreshertown, Pa.

THOMAS MEEHAN.

SALESMEN'S COMMISSIONS.

How do nurserymen ordinarily pay their agents? Do they give them a commission or salary, or both? What is the usual commission and salary paid? SUBSCRIBER.

Very few nurserymen at the present time pay salaries. Possibly an exception is made now and then in the case of old employees, but this is rare. The usual commission is 25 per cent.

C. L. YATES.

SUGGESTIONS REGARDING THE HANDLING AND PACKING OF NURSERY STOCK—A MINNESOTA CONTRIBUTION—A REMINDER.

(CONTINUED FROM OCTOBER ISSUE.)

1. In the course of handling stock, when does it receive the most injury, and what are some of the commoner causes of injury?

First, in the hands of the nurseryman himself; second, in transportation; third, in the hands of the customer after it has been received. It is probable that more than 75 per cent. of the injury suffered by all nursery stock occurs after it has reached the customer's hands. At least this would be the conclusion anyone familiar with delivery time might draw. Ignorance of the first principles of plant life and the natural carelessness of tree planters in general undoubtedly cause a large amount of failures.

Yet there are, of course, many places in the routine of digging and packing, where unnecessary exposure may partly or wholly destroy the vitality of the trees. The same carelessness which is exhibited by the purchaser is found in the employee who handles the stock in the nursery and packing house.

2. What classes of stock require most care in handling?

First of all we would name the coniferous trees. Undoubtedly the evergreen is the most difficult of all the problems we have to contend with. Next and almost equal to it we would name the strawberry, and it is probable there is more fatality in these two branches than all others put together.

3. What influence has careless handling and packing upon the nursery business?

Our answer to this would be that next to carelessness in mixing varieties, the careless handling of stock on the packing grounds is the cause of more dissatisfaction and general distrust of nurserymen than any other element in the business. The nurserymen who take every care in this particular, suffer constantly from the improper methods of those who willfully or ignorantly allow their stock to be badly treated before shipping, as well as from the carelessness of their own help.

4. What general suggestions have you to offer for the good of the trade, on the digging, handling and packing of nursery stock?

During the rush of the packing season it easily pays to have one competent man watch over the stock in all departments and see that undue exposure is not allowed. We have found this the only way to insure proper treatment. The custom with most wholesale merchandise houses is to put a very close check system upon their billers and packers and carelessness in packing, grading and digging is thus brought directly back upon the man who is responsible for the work.

It would be difficult to employ a too exact system in this business, but we believe things could be systemized so that the management of a nursery might see where poor work was being done.

Lake City, Minn.

JEWELL NURSERY CO.

HINTS FROM LONG ISLAND.

1. In the course of handling nursery stock where does it receive most injury, and what are some of the commoner causes of injury?

Nursery stock receives the most injury at either of two points, that is, if it is dug and allowed to lie around on top of the ground in the nursery until the fibrous roots are dried out and destroyed, and a large portion of the moisture dried out of the heavy roots. As soon as dug, nursery stock should be either taken into a protected moist shed or have the roots plunged at once into liquid mud. If the roots are plunged into the liquid mud and immediately put into a moist shed out of drying winds and bright sunshine, it will receive much less damage. Again, when it is received for planting it is damaged greatly if allowed to lie around in dry winds or bright sunshine before planting. If it is again dipped in liquid mud so that the roots go into the ground plump and damp, it will receive the less injury.

Another cause of injury is stock heating owing to improper packing. The third cause of injury is improper planting, that is, the soil not being properly firmed around the roots.

2. What classes of stock require most care in handling?

The class of stock that requires the most care in handling is evergreens and other plants that have fine fibrous roots, but all nursery stock should be handled with especial care to preserving the moisture in the plants and root.

3. What influence has careless handling and packing upon the nursery business?

Careless handling and packing is decidedly detrimental to the nursery business, and has a tendency to reduce sales.

4. What general suggestions have you to offer for the good of the trade on the digging, handling and packing of nursery stock?

The only general suggestions I would have to offer for the good of the trade in handling nursery stock is to dig carefully preserving the maximum amount of roots, to handle and pack carefully always with a view of keeping the root system of all plants plump, moist and fresh, and in evergreens to prevent the foliage from drying out.

5. Another cause of injury in handling nursery stock is improper digging. I have received plants that have been grown in the same section of the country in the nurseries adjoining each other, being the same identical variety, of the same size and in the same condition when I looked at them in the nursery. Yet from those received from one nursery we lost but one or two per cent. from the other nursery we lost 50 to 60 per cent. The whole trouble was in the digging and packing. One nurseryman dug large balls and gave sufficient roots to support the top, the other dug one very small balls, crammed his stock into the cases in order to save room, the result being that we lost both from the lack of sufficient root system to maintain the plants as well as from heating due to improper packing.

Queens, N. Y.

Cottage Gardens Co.

Correspondence.

INTERESTING BUDGET FROM THE PACIFIC COAST.

The Pacific Coast nurserymen are pleased to see the effort made by the Legislative Committee looking towards uniform state legislation affecting the inspection of nursery stock, and all nurserymen should render the committee all the assistance possible in this work. The nursery business seems to have been made the target by horticultural legislators in most states, while little attention has been given to the eradication of insect pests in their real breeding places, old orchards, parks and private grounds. Let nurserymen insist that these breeding places adjacent to their grounds be cleared up, and it will not be long until there will be no need for such close inspection of nursery stock. If old orchards and other breeding places for insect pests and diseases are kept clean, there will be very little danger of nursery stock being diseased. Yes, support the legislative committee in this work of fair and uniform state legislation.

The Lewis & Clark Exposition closed Saturday the 14th of October, with a record that places it at the head of the best of successful World's Fairs for its size and scope, the management stating that a dividend of about 30 per cent. will be returned to the stockholders. The exhibits of fruits at the Exposition were exceptionally fine, and brought forth many exclamations of surprise on the part of Eastern visitors who were not prepared to see such a great development of horticulture in the old Oregon country.

The nursery business is sharing in the general development and a few years should see the Pacific Coast the nursery center of the United States. Nurserymen are in the midst of their fall shipping season, and the outlook at this time is bright for good sales, prices and collections.

The agents' retail business is about the same as last year, but inquiries for trees for the planting of large commercial orchards is very brisk for this season of the year, and at the present time, the outlook is for a good clearing up in all lines before spring.

Many lines of stock such as cling peaches, pears and cherries are beginning to show signs of shortages already, and prices have an upward tendency all along the line.

Salem, O.

M. McDONALD.

CATALOGUES RECEIVED.

Andorra Nurseries, Chestnut Hill, Philadelphia, Pa. A. Price list of specimen trees, shrubs, roses and fruits, fall of 1905. B. A beautifully illustrated little booklet describing the various steps in the digging packing and shipping of coniferous trees. This booklet is most attractive and suggestive, and aside from this is distinctly instructive.

F. R. Pierson Co., Tarrytown-on-Hudson, N. Y., wholesale price-list of bulbs, palms, etc., for the fall of 1905.

Oak Lawn Nursery, Huntsville, Ala., wholesale price-list, fall and winter, 1905.

T. V. Munson & Co., Denison, Tex., a descriptive, illustrated tree planters' handbook, and catalogue for 1905-'06.

Descriptive price list of the Shatemuc Nurseries, Tarrytown, Dutchess county, N. Y. Superintendent and manager, Mr. Geo. T. Withers.

The Good & Reese Co., Springfield, O. Catalogue of greenhouse plants, including hardy roses and flower seeds.

The New Haven Nurseries, New Haven, Mo., issue a very attractively gotten up catalogue, which contains not only pictures of the nurseries, but of the proprietors.

The Cayuga Nurseries, H. S. Wiley & Son, Cayuga, N. Y.

The Henry Phillips Seed and Implement Co., Toledo, O.

Knox Nurseries, H. M. Simpson & Sons, Vincennes, Ind.

John A. Salzer Seed Co., Lacrosse, Wis.

T. S. Hubbard Co., Fredonia, N. Y.

R. & J. Farquhar & Co., Boston, Mass.

P. J. Berekmans Co., Fruitland Nurseries, Augusta, Ga. 48 pages, voluminously illustrated with pictures of grounds and plantations.

Otto Katzenstein & Co., Atlanta, Ga., and New York. A price list of seeds and trees and shrubs, including herbaceous plants, fruits and bulbs.

Thomas Meehan & Sons, Dreshertown, Pa., showing specimen trees and shrubs. Photographs made from trees growing on home grounds.

Note and Comment.

THE FRUIT CROP.

THE ORANGE OUTLOOK.

Reports from various parts of Florida indicate that the crop will not be a large one, that it will be a little later than usual, and that the fruit will be of excellent quality. In some sections full crops and larger are reported, while in other regions light yields or no yields at all are the rule. The character of weather between now and maturing time will determine to a large degree the quality of the fruit. The "Packer" estimates that the state yield will amount to 1,500,000 boxes. Prices about the middle of October ranged from 90 cents to \$1.25 to \$1.50 per box on the tree.

FLORIDA TRUCK.

The season in Florida is such as will throw the marketing period of truck crops considerably behind time. Florida strawberry growers expect to get their first fruit on the market about Christmas time, while such vegetables as egg plant, peas, string beans, and tomatoes will, barring unlooked for frosts, be ready between the middle of December and Christmas time.

APPLES IN THE EAST.

With a short apple crop, good apple growers, (the men who get the fruit) are making money this year. Prices run from \$2.00 to \$3.00, and even higher for fancy stock. In New York state there is probably not more than twenty per cent. of the crop of last year, but practically everything is being barreled and we may look out for brusque protests from the other side when the fruit is opened. The tendency when short crops prevail is to barrel everything in sight, irrespective of codling moth or scab. There is no one county in New York state that can claim anything like full crop. Perhaps Orleans county makes as good a showing as any. The crop in most of the states is light, but prices range high. Ben Davis were selling in the orchards of the Ozarks a few weeks ago at \$3.00 a barrel, while Jonathan and Grimes were even higher.

GRAPES.

Black rot made serious inroads into the grape crop of the Chautauqua, Seneca Lake and Keuka Lake regions. In the wine making sections standard varieties like Concords sold rather slow, for the reason that in the last two years of heavy yields, wine makers have stocked up pretty heavily with grape juice, but later in October prices picked up wonderfully. Delawares have been good stock at ten cents, while Niagaras are held a cent or two lower, with prospects of an advance.

APPRECIATED ABROAD.

NATIONAL NURSERYMAN.

With pleasure I enclose one dollar to renew my subscription. Your Journal certainly meets with my approval, it is as good as any and better than most in the trade. You may place the same advertising in your next six papers for me.

Boskoop, Holland.

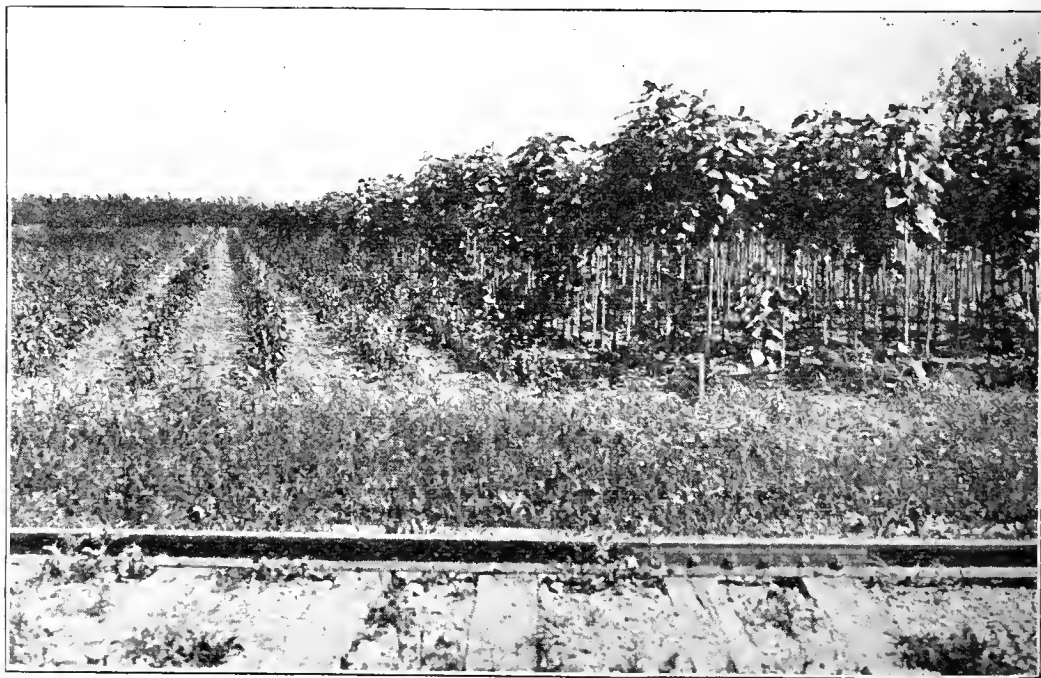
P. OUWERKERK.

EDITOR, NATIONAL NURSERYMAN.

The Journal is *Good*, and you deserve support, and great credit for your work. Wishing you much success, and hoping to place an add, with you next season, we remain,

Charlotte, N. C.

MECKLENBURG NURSERIES AND ORCHARDS.



Part of a Block of Bungeii Catalpa grafted one year, standing six to nine feet high. W. & T. Smith Co., Geneva, N. Y.

SPECIALTIES FOR NOVEMBER.

Apple seedlings, pear seedlings, Japan and Kieffer, with a full line of forest tree stock are offered by F. W. Watson & Co., Topeka, Kans.

The Burnham sectional boiler is one of the thoroughly reliable types of greenhouse heaters. It is a feature of the heating apparatus offered by Burnham, Hitchings, Pierson Co., New York.

For a full line of ornamental forcing material, apply to P. Ouwerkerk, Jersey City, N. J.

Carolina Popular and Catalpa Speciosa are specialties of R. R. Harris, Harrisville, W. Va.

Peach seed has been secured in considerable quantity by Pinnacle Seed and Nursery Co., Rochester, N. Y.

Tea's weeping mulberry is among weeping trees becoming increasingly popular. They are offered by the Commercial Nursery and Orchard Co., Sherman, Tex.

North Carolina peach seed is prized by peach stock growers. J. VanLindley Nursery Co., Pomona, N. C., offer them in hundred bushel lots.

European plums are after all standards in the greater portion of the East and New England. For a full line of domesticas write Morey & Son, Dansville, N. Y.

French crab and French pear seed can be found of excellent quality at the Thos. Meehan & Sons Nurseries, Dreshertown, Pa.

One and two year cherry, pecan seedlings, and grafted varieties are offered by the Frazer Nursery, Huntsville, Ala.

The mammoth black twig and York Imperial apples succeed excellently in the great Ozark region of Missouri and Arkansas. These varieties with many others are offered by J. G. Harrison & Sons, Berlin, Md.

Secretary E. G. Mendenhall of the Horticultural Society of Southern Illinois, announces the thirty-second annual meeting at Olney, November 21 and 22.

IMPORTANT REQUEST BY PRESIDENT ALBERTSON. INDIVIDUAL CONTRIBUTIONS TO HELP COMMITTEE WORK SOLICITED.

"I regret very much that it has become necessary for me to call your attention to the condition of the treasury of our Association as shown by the recent statement of our treasurer, a copy of which is enclosed herewith. From this balance is yet to be deducted the expenses of the Transportation Committee to New York, October 3rd, to argue our petition for restoration of 3rd. class freight rate on trees in boxes, before the Official Freight Committee, and some other small bills which will leave a very small balance, a very unfortunate condition just at this time.

There is some very important work that should be attended to within the next few months by the committees. On Nov. 14th, the State Entomologists and Nursery Inspectors hold their annual meeting at Washington, and the first item on their programme relates to uniform state legislation governing the inspection of nurseries, and shipment of stock, and the best way to secure it. Prof. Forbes, (Entomologist of Illinois) secretary of this Association, and others of the leading Entomologists have urged that our Association be represented by a good committee, assuring us that all of the time wanted will be given for full and free discussion. Certainly no more important matter has come up in years, and it will be a great misfortune should we fail to meet with them.*.*

Then there are the freight committees with which some work should be done.

To drop all of this and allow the interest to die out and the work possibly turned over to new hands in an unfinished condition would certainly be a great mistake and loss to the Association.

I can not ask the committees who are so generously giving their time to the work to go ahead with it, paying their own expenses, with nothing in the treasury to reimburse them. What shall we do? I see but one course and that is that our leading members who are being so largely benefited, make a liberal contribution to our treasury immediately so that the work may go on. It may be in the power of the Association to refund these contributions in the future, as to that I can not say, but I do not believe under the circumstances that you can afford to say no or fail to respond promptly and while it is an unpleasant request for me to make, I ask you to make a liberal contribution at once. Mail your check today to our treasurer, C. L. Yates, Rochester, N. Y., to be credited to the Association and report to me so that I may know you received this letter.

One contribution of \$50.00 has already been offered by one of our good members, can not you do as well? If not show your appreciation of the work of your committees by a smaller contribution promptly, and I assure you your committees will do their part. November 14th is almost here.

Bridgeport, Ind.,
October 24, 1905.

Yours truly,
E. ALBERTSON, Pres.

The treasurer reports the receipt of contributions to the amount of three hundred dollars approximately, up to Nov. 4.—ED.

BALANCE SHEET AMERICAN ASSOCIATION OF NURSEYMEN.

June 12	Balance of Cash on hand,.....	\$2,570.74
" 23	Refund of money, C. P. Association.....	23.00
		<hr/> \$2,593.74
June 16	Expense of George G. Hedgecock from St Louis to West Baden and return.....	\$17.30
	Telegrams to Mr. Sanders and Mr. Sweet.....	.85
	Hotel bill, Mr. Moore, Mr. Hedgecock and Mr. Overstreet.....	12.00
	H. P. Kelsey, postage and printing and stenographer.....	58.05
	W. S. Hoffman, express.....	64.70
June 19	Wm. Pitkin, expense of Eastern Com. to Buffalo, N. Y.	149.56
June 23	C. L. Yates, salary as Treas., and postage	50.42
July 5	E. Albertson, expense to Toledo and Chicago.....	61.81
	Paid Cntrl Pass. Asstn.....	6.00
	Geo. C. Seager, Secretary salary.....	500.00
	Pettibone Bros., Mfg. Co., badges.....	20.00
	Miss Jacobsen, reporting Convention....	73.00
	Geo. C. Seager, Secretary incidentals....	6.75
	J. Horace McFarland, printing for Program Com.....	12.00
	Geo. C. Seager, for postage.....	10.00
July 7	Union & Advertiser, printing badge, book, etc.....	301.00
Sept. 1	McGuire & Wood, legal services.....	100.00
	J. Horace McFarland, lantern slides, etc.	58.50
	W. C. Reed, ex. Classification Com.....	60.00
Sept. 4	H. P. Kelsey, exp. to Wash. D. C., acct. Com. Am. Seed Trade Ass'n.....	46.47
	Thomas B. Meehan, exp. to Wash. D. C. acct. of Com. Seed Trade Ass'n.....	26.00
	Union & Advertiser, 550 reports of Proceedings and postage.....	275.15
Sept. 13	L. R. Bryant & Co.....	8.00
	H. P. Kelsey.....	5.50
	E. Albertson, exp. Classification Com. to Texas and Norfolk.....	148.75
		<hr/> \$2,071.81

\$521 93

C. L. YATES, Treasurer.

VERY LOW RATES.

To Western and South-Western points, via WABASH R. R. from Buffalo. Tickets on sale the first and third Tuesdays during November and December. Full information. Write R. F. Kelley, or James Gass, 287 Main Street, Buffalo, N. Y.

ESTABLISHED 1875

Mt. Arbor Nurseries

E. S. WELCH, Prop. - - - SHENANDOAH, IOWA.
One of the largest, best equipped and most up-to-date
nursery plants in the United States.

Large Supply for Fall 1905, Spring 1906.

APPLE

Over 100 Best Varieties.

PLUM AMERICANA

Largest Stock in the United States.

CHERRY

Leading Sour Varieties.

APPLE SEEDLINGS

Grown on New Land Free From Disease.

ROSES

Fine Lot, Hybrid Perpetual Climbing
and Ramblers.

ORNAMENTALS

Splendid Stock of Best Kinds.

Forest and Deciduous TREE SEEDLINGS

One to Two Million Leading Kinds.

APPLE GRAFTS

Made To Order.

Is your name on our mailing list?

Three Wholesale

Price Lists

(To the Trade only.)

**Fall, Winter
and Spring.**

F. JAMES & SONS, Nurserymen

Ussy, Calvados, France

Offer a general assortment of Fruit Tree and
general Nursery Stocks, Roses, etc., etc.

Prices very low. Packing Secured. Catalogue Free.

Agents for the United States and Canada.

C. C. ABEL & CO., 110-116 Broad St., NEW YORK

Forest Tree Seedlings

We offer for Fall or Spring delivery a large stock of Forest Tree Seedlings, all nursery grown, well rooted and well graded.

BLACK. LOCUST 8-12, 12-18, 18-24, and 24-36 inch grades.

HONEY LOCUST 8-10 inch grades.

HARDY CATALPA 8-12, 12-18, 18-24 and 24-36 inch grades.

RUSS. MULBERRY 8-12, 12-18, 18-24 inch, 2-3 and 3-4 foot grades.

ASH (white) 8-12, 12-18, 18-24 and 24-36 inch grades.

BOX ELDER 8-10 inch grades.

WHITE ELM 8-12, 12-18 and 18-24 inch grades.

Also Butternut and Persimmon seedlings, large shade trees and flowering shrubs. Prices will be right; we make them ourselves.

GERMAN NURSERIES,

Carl Sonderegger, Prop., Beatrice, Neb.

I HAVE TO OFFER FOR FALL 1905

Extra fine stock of Plum, Japan and European, both 1 and 2 years. Cherry, sweet and sour, 1 and 2 years. Keiffer Standard and Dwarf Duchess, 2 years. My prices will please you.

JAS. M. KENNEDY
Dansville, N. Y.

When writing to Advertisers mention The National Nurserymen.

Albertson & Hobbs

BRIDGEPORT, MARION CO., INDIANA

Over 300 Acres of Young Nursery Stock

Indianapolis and Plainfield Electric Cars pass our office hourly, 30 minutes ride from Indianapolis.

A FULL LINE OF GENERAL NURSERY STOCK
FOR FALL 1905 AND SPRING 1906

APPLE, PEACH, PEAR, PLUM, CHERRY,
CAROLINA POPLAR, BOX ELDER, CAT-
ALPA, SILVER MAPLE, NORWAY AND
HARD MAPLE, AND OTHER SHADE AND
ORNAMENTAL TREES.

IN CAR-LOAD LOTS, OR ASSORTED CAR-LOADS

Also large stock of Ornamental Shrubs, Vines, Evergreens, Roses and Small Fruits.

Apple, Pear, Plum, Cherry and other Seedlings. Forest Seedlings, etc.

Shipments from Bridgeport, Ind., Topeka, Kan., or Dansville, N. Y.

We invite your personal inspection of grounds, packing houses, stock, etc. Packing and shipping facilities are the best. Stock stored in fall for winter or early spring shipments.

Our SPADES are the BEST and CHEAPEST made.

EXCELSIOR (baled dry), the best packing material either for storage or shipping.

We Hope to Have Chance to Price Your List of Wants

BERT MITCHELL,

MATHER, WIS.

—DEALER IN—

SPLAGNUM MOSS

AND ALSO

Evergreen Trees, Spruce, Tamrack and White Birch

AT LOW PRICES.

My Moss is absolutely dry, baled in burlap and in wire bales at low prices. Don't be fooled by other dealers. Ask for prices before placing your order elsewhere.

LENAULT, HUET & COLOMBE,

NURSEYMEN,

USSY, CALVADOS, FRANCE.

Growers and Exporters Of French Nursery Stock

A great assortment of fruit trees such as Mahaleb, Mazzard, Myroblan, Pear, Apple, Quince, Manetti, Rose, Multiflora, Forest Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

When writing to Advertisers mention The National Nurseryman.



View of the Attractive Nursery Office at Andorra, Located on the Wissahickon Drive at the Entrance to Fairmount Park.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. XIII.

ROCHESTER, N. Y., DECEMBER, 1905.

No. 12.

The Andorra Nurseries, a Wholesale and Retail Emporium of High Grade Ornamentals.

Located in the Cradle of the Nursery Business.

Philadelphia will ever be closely associated with plant culture in general, and the propagation of plants or the nursery business in particular. Since the days when Humphrey Marshall and John Bartram established their nurseries and seed and plant distributing gardens in and near Philadelphia, that region has been noted as a collecting and disseminating center. There are few places on the continent where one will find more interesting groups of native and exotic trees and shrub than in the heart and environs of the Quaker City. Old firms have flourished and have passed away; new ones have replaced them. The name of John Bartram a century ago connected the plant interests of the New World with Eng-

land and the Continent. His life and work are now but a memory. His garden fortunately is maintained, not intact it is true, but still cared for as a spot rich in tradition and sentiment, as well as in historic occurrence. Old firms have come and gone; new ones are springing up.

Among the companies which have taken a vigorous hold of the problems of the twentieth century nurseryman, and are now occupying a prominent position in the plant propagating world, none deserves more worthy mention than the Andorra Nurseries. Situated on a beautiful site on Chestnut mill, overlooking from various vantage points wonderful sweeps of country, the undulations of the land present the



Beds of one year old Phlox Paniculata at Andorra.

desirable and necessary variations of aspect and exposure which enable the proprietor to give the large list of plants cultivated the varying soil and climatic conditions their habits demand.

ANDORRA NURSERIES ESTABLISHED.

It was in 1886 that H. H. Houston established these nurseries. The primary object Mr. Houston had in mind was to secure a place from which he could obtain plants to supply his own grounds. The enterprise grew till 1890, when a catalogue was issued. This consisted of a 35-page descriptive list, including a considerable number of varieties of fruits, specializing in European types of apples and pears. The catalogue was notable in that, though printed in English, it contained the botanical names as well as the vernacular of each species of tree, and these were supplemented with the name of the tree rendered in German and French. It



Box, pyramidal and bush form, the old fashioned formal garden plant, is extensively propagated as specimen. Plants 3 to 4 feet apart at Andorra.



Various types of Ornamental Evergreens in the Andorra Nurseries.

publications of the type that was issued up to that time by any nursery. It also marked the beginning of an important series of booklets for the Andorra Nurseries of the same character. One of the most notable of these is the "Andorra Handbook," published in 1903, which may be regarded as a monograph of the ornamental trees and shrubs of the Northeast, and one which will rank high among the descriptive publications of the kind to be found anywhere.

This firm also adopted in 1900 the system of sending semi-annual price lists, these in the form of distinct sheets from the catalogues itself. This information was made necessary by the rapid development of the business, and the radically modified character of the stock produced.

REMARKABLE GROWTH.

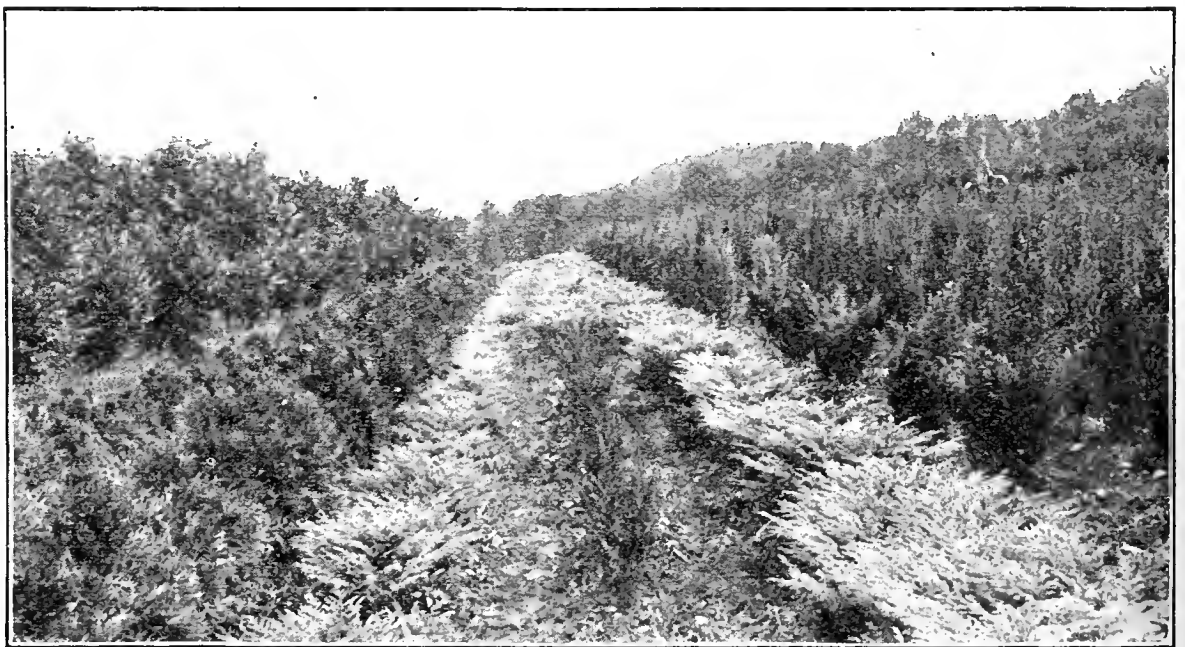
The business under the present management is then prac-

was then an attempt to give the catalogue a distinctly international character.

In 1891 Mr. Wm. Warner Harper assumed charge of the nurseries as manager, and proceeded to place the whole enterprise upon a well organized business basis. It was this year that the catalogue took on the characteristics which have since become so prominent, in that a number of evergreens, deciduous trees and shrubs were included. This type of catalogue was continued each year until the close of the season of 1896.

HIGH GRADE CATALOGUES.

In the year 1897 Mr. Harper purchased the entire control of the nursery from the estate of H. H. Houston, and the same style of catalogue described above was continued till 1900, when a change in the descriptive literature of the nursery was inaugurated. The booklet entitled "More Specialties" marked a distinctly higher type of nursery literature, and it was one of the first high class nursery



Junipers in quantity and great variety of form at Andorra.

tically fifteen years old, and during its life time the remarkable possibilities of a vigorous business policy, coupled with

good nursery practice is exemplified in the extraordinary growth which has occurred. In the beginning, the firm's business was entirely local. At the present time it is extremely cosmopolitan. The entire United States is covered in the shipments of stock, and many foreign consignments are made.

This growth is well illustrated by giving an exhibit of the rapidly increasing acreage since 1886 when the nursery area comprised 50 acres. In 1890 it was enlarged to 120 acres, in 1893 to 207, in 1897 to 417 and in 1900 to 513 acres.

FIRST QUALITY STOCK.

The constant purpose of the proprietor of the Andorra Nurseries is to produce a high grade product. Ornamental trees and shrubs of fine form with strong frames and well balanced development are sought. To this end the strictly hardy park and door yard decorative material is so cultivated as to allow it to develop normally and vigorously. There is a brisk demand at the present time for fine specimens and shrubs as well as trees are planted, so that each may grow without crowding the other. This means plenty of space, and where land is high priced it means added expense.

SYSTEM IN THE HANDLING OF STOCK.

Expensive stock must be handled with all the care, ex-



Specimen Box Tree, showing well developed roots; Andorra Nurseries.

perience and ingenuity can devise. The work of lifting, packing, handling and transporting of this high grade material has been wonderfully systemized at Andorra, and for celerity coupled with careful manipulation it would be dif-



Norway Maples grown 6 by 4 feet apart; such stock are fine trees for lawn or park planting.



Showing the Andorra system of wide planting of specimen trees in 8 feet rows; Scarlet Thorn on left, Red Oaks on right.

ficult to suggest an improvement. The best proof of the quality of the system is the satisfaction of the customer, and this is freely offered to the shipping department of the Andorra Nurseries. The storage and packing shed is now an important part of the equipment of the modern nursery firm. The packing sheds have a capacity which enables the firm to handle four or five carloads of stock a day in addition to the local trade, which in the vicinity of the wealthy residential portion of a city like Philadelphia is large and constantly increasing. This company represents an important ideal in the nursery business, namely to choose your line and then labor to produce the best that favorable conditions of soil and climate coupled with scrupulous attention to details can accomplish.

A SUMMARY .

Andorra's specialties in trees and shrubs includes the growing of those suitable for ornamental planting, and they are cultivated principally in the large sizes, most of the call being for material running from $3\frac{1}{2}$ to 6 or 8 feet.

Andorra makes a specialty of handling this kind of stock for the retail trade. It is all grown in wide rows, as individual specimen stock, and no material is dug except on orders, and then each plant is taken out as an individual, the stock being sufficiently far apart to admit of convenient and safe digging.

In herbaceous stock, Andorra carries a full line of all material, suitable for formal and old fashioned gardens, with special lines as Peonies, Phlox and Chrysanthemums,

The effort is to cater to the high class retail trade; the man to be reached is the one who has a place of two or more acres,



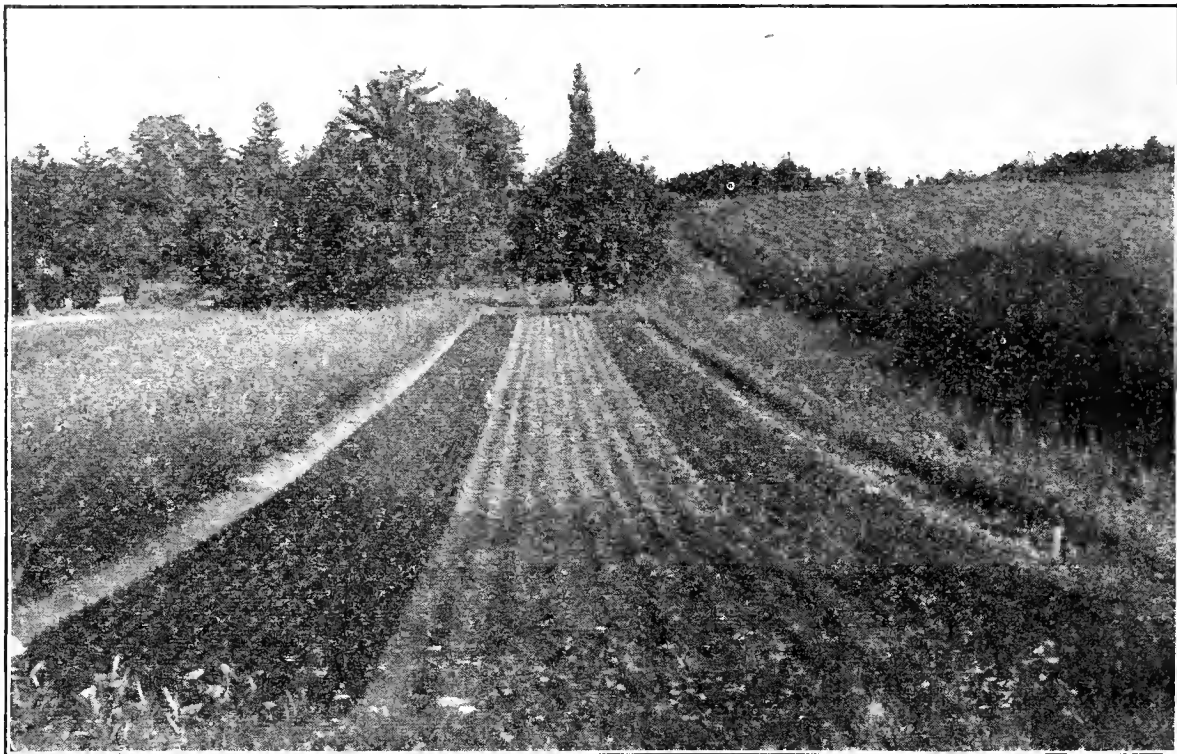
An acre of Peony and Iris Beds at Andorra.

and who appreciates a good tree. Andorra Nurseries have never been accused of selling at low prices, and they are building a very satisfactory trade on the recommendations of satisfied customers.

CONFERENCE WITH STATE NURSERY INSPECTORS.

INSPECTORS OPPOSE STATE LICENSES FOR OUT OF STATE NURSE-
RYMEN—FAVOR A UNIFORM TAG.

The editorial office of the NATIONAL NURSERYMAN was favored with a call from Capt. Watrous on his return from Washington where he attended the joint committee confer-



General view of cutting beds, showing shrubby box and various types of coniferous evergreens.

ence of nurserymen and State inspectors. The Captain was sanguine regarding the beneficial results of the conference and spoke as follows on the probable outcome of the discussion:

"A committee of the Nurserymen's Association met with the Association of State Nursery Inspectors in Washington, November 14th and 15th. The object of this meeting was to try to devise some means of securing greater uniformity in the regulations relating to nursery inspection in the different states and to remove, if possible, some of the vexations incident to the shipping of nursery stock from one state into another, particularly relating to licenses and special tags. The Committee had the most cordial reception, and their meeting throughout was most enjoyable. The Entomologists showed themselves ready to meet us, not only half way, but to come as far as they possibly could, consistent with their ideas of duty; and the Nurserymen assured them that they would not, if they could, take down any safeguard thrown about the orchards and vineyards of any state in protecting them against scale or other injurious diseases or infestations."

"The chief things accomplished by this meeting were that the Association of Inspectors placed themselves fairly on record as opposed to requiring a license by any state for local or out-of-state nurserymen. This action was not difficult, because only a few states had any such requirements. The waver of this on the part of a few would bring complete har-

mony in this regard. As to the requirements made by several states that nurseryman from other states wishing to do business in these states must send there and procure special tags,—a committee was appointed to take the matter in charge, with authority to devise one tag for interstate business, which might be applied for through the chairman of this committee, by any nurseryman, in any state, desiring to do business in any other state. Then upon having convinced the committee that his nursery was in such condition as to be worthy of interstate confidence, one tag might be issued to the nurseryman at a reasonable cost for printing and office work and this one tag would be received in all the states. This it was thought would be a very important step in advance because, while not removing any safeguard from any state, it would simplify the work of the nurseryman."

Copies of the proceedings of the Association of Entomologists especially relating to nursery work, will be ready in a short time and then a fuller report will be furnished the NATIONAL NURSERYMAN.

REPORT OF THE WORK OF THE TRANSPORTATION COMMITTEE.

As Chairman of the Transportation Committee, the writer appeared before the Southwestern Tariff Committee at their meeting in St. Louis, Mo., Nov. 14th. This Committee controls the territory comprised in Texas, part of Louisiana, Indian Territory and Oklahoma. That is in the Western Classification but they file exceptions to some items and one of these exceptions being fruit trees in car load lots; they still hold to the 20,000 lb. minimum.

In appearing before the Committee we made the same request of them, that we made to and was granted by the Western Classification Committee. This will give us 16,000 lbs. minimum in cars under 36 ft. 6 in.; 20,000 lbs. in cars 36 ft. 6 in. to 45 ft. 6 in.; 24,000 lbs. on cars over 45 ft. 6 in.

I am pleased to report that the Committee voted favorably on this request and that same will go into effect as soon as ratified by the members of this Committee not present, there being a few members absent at the meeting. However, I do not think there is any doubt that these members will sanction the action of the Committee.

We have made application also for the above changes with the Southern Classification Committee and will appear before

this Committee at their next meeting at the New Seelbach Hotel, Louisville, Ky., Dec. 5th.

The members of the Committee will be glad to have the co-operation of all of the Southern Nurserymen and would urge them to write their general freight agents pressing the changes asked for.

W. C. REED,
Chairman of Transportation Committee
American Association of Nurserymen.

Quiz Column.

PROPAGATION QUESTIONS.

1. When are fruit stocks budded in Virginia.
2. How long are seedlings cultivated.
3. How are peach pits handled.

BEGINNER.

Ans. Apples and peach should be budded from 1st of July to September 20th. Pear and plum during June and July, plum, cherry and quince during August and September.

Seedlings need not be cultivated after getting a good stand.

We bed peach seed during either September, October and November, and plant kernels as soon as spring opens. Some nurserymen however, plant pits in fall in nursery row.

W. T. HOOD & Co.
Richmond, Va.

ON CULTIVATION.

In the preparation of land for nursery trees, is sub-soiling desirable?

BEGINNER.

Mass.

In this section at any rate, we can get the best results from our nursery ground for spring planting, by

ploughing in the fall. Moreover, we not only want to plough it but sub-soil it as well. We have never practiced sub-soiling to any extent, till last fall, when we prepared a large field by sub-soiling it, going as deep as possible and we were astonished how much better it made the ground for spring planting. In addition, the growth of the stock planted on this sub-soiled ground was far better and stronger than on ground that had not been sub-soiled. Our experience in this one instance was sufficient to decide us on sub-soiling all nursery ground in the future.

Dreshertown, Pa.

THOMAS B. MEEHAN.

How much should growing nursery stock be cultivated? Can it be over-cultivated.

A. F., Pa.

We have been cultivating nursery stock for seventeen years, and we have found nothing that responds more quickly to cultivation than thrifty growing nursery stock. When the ground is in good condition, and not too wet, we would advise thoroughly cultivating not less than two strokes in each row, once each week, but of course there are exceptions, when there comes a dashing rain, then the stock cannot be worked at exactly the proper day of each week, but to take an average of the season, we expect to cultivate our stock at least once



Specimen Evergreens, showing root-balls and method of burlapping at Andorra.

each week, if very dry, because the moisture is essential to growing nursery stock; and if possible, we prefer to have the stock worked twice each week when very dry.

Our method of cultivating during very dry weather is to use a two-horse cultivator, a two row, Planet Junior, which will do one row at a time, and then if there are several unmashed clods, we take the clod masher, or sled and run down the center of each row, so the clods will not be exposed to the sun and get dried out, as we want to keep the moisture near the surface of the ground. But we do not believe in working in this manner and leaving it under sled for long at a time. Thorough cultivation will save one-half of the fertilizer bill, and if you keep a mulch crop of sorghum, cow peas, and crimson clover on during the winter, it will save you the other half of the fertilizer bill.

Berlin, Md.

J. G. HARRISON & SON.

Editor of the NATIONAL NURSERYMAN:

We enclose renewal of our subscription. Your journal is very interesting to us as it gives information on the fruit tree side of the business in which we are specially interested, whereas the other trade papers seem to cater more for the greenhouse side of the trade.

Yours faithfully,

Lowdham, Notts.

A. & C. PEARSON.

Correspondence.

A SHOT AT STRINGFELLOW.

EDITOR NATIONAL NURSERYMAN:

The claims that our friend Stringfellow sets up, reminds one very much of the patent medicine men who never allow but one side of the story to get into print. I have been living in the adjoining county to that in which Mr. Stringfellow now lives, some thirty years, so when I heard of him planting out about two thousand fruit trees in the sage grass prairie of Lampassas county, and with all the side roots cut off to conform to a small hole made by a crowbar, of course it suggested something supremely ridiculous. I soon learned from one of his near neighbors, as might be expected, that failure was complete, but Mr. Stringfellow continuing to advocate the same principals together with the ability to produce some fine samples of fruits, my curiosity lead me to visit and see for myself, his home orchard. I found it to be in what I consider—the highest state of cultivation, and not untitled, as his statements would indicate. It is true the lot is sodded with grass, but its also true that none of it is allowed to encroach *near enough to in any-way damage the trees*. Every blade is perfectly under control, corresponding to a well kept lawn, each tree growing in the centre of thoroughly prepared and worked fertile soil. This orchard with his residence, is beautifully situated on the hillside, and underlaid with rock at just about the right depth to make drainage perfect, even in excessively wet spells, as was the case here this year, up to about the first of July. Allowing the grass to grow this year also helped to extract the surplus moisture. Here we have the one extreme under perfect control. Now for the other, it's a well-known fact here in Western Texas, that it makes no difference how rich the land is, if there is no moisture, nothing will grow. But what do we see when a drought is on? An oasis in the desert as it were, by the influence of subirrigation.

To understand the advantages of subirrigation over surface irrigation, one will have to see for themselves. Mr. Stringfellow it must be remembered, is a gentleman of leisure, and is able to personally attend to every detail. He is a close observer, also a fluent and prolific writer, hence it's to be deplored that he lacks the ability to be better able to discriminate. A small part of my Pecan orchard I call the Stringfellow orchard, it is struggling for existance, while the other part is fruiting nicely. The next time I have the pleasure of talking with Mr. Stringfellow, I hope to find out the results of his experience from sowing 10 acres of wheat out in the unbroken prairie which he claimed would be free from diseases, and is the natural way for it to grow.

San Saba, Tex.

G. E. RISIEN.

DEPARTMENT STORES.

Referring to your note regarding Department Stores, we have to say that while in Philadelphia they have been handling Dutch Roses and odds and ends, for the last few years, these however, only reach a certain class, and we do not think interfere largely with our trade, although occasionally they secure customers who are attracted by the extremely low prices at which they sell the stock, but we are perfectly able to make sales in competition with them owing to the fact that they give no guarantee as to the plants living, or their being true to name, etc. We have never had any orders from any of the Department Stores to sell our stock, as they usually import the cheap Dutch Roses.

West Chester, Pa.

HOOPES, BRO. & THOMAS.

Note and Comment.

Kieffer pears in Burlington County, N. J., were sold on the track the latter part of October, for half a cent and less per pound. Bartlett pears in western New York brought two and two and one-half cents per pound in August. All things tend to gravitate to their natural levels in this world.

AGRICULTURAL CAPITALISTS.

We hear organization of capital in various parts of the country. A striking note comes from England, where it is said a syndicate with a capital of \$500,000, entirely contributed by land owners in northeastern England, has been formed. The purpose of this syndicate is to market the fruit and farm products more economically than has been possible in the past.

FUZZY PEACHES.

The *Rural New Yorker* has a symposium on the question of whether woolly skinned peaches are more rot-resistant than are those which are relatively smooth-skinned. The evidence and opinions of such men as S. D. Willard and Geo. T. Powell, of New York; Waugh, of Massachusetts; Ballou, of Ohio; Trinkle, of Indiana, and Skilman, of New Jersey, are unanimous in believing that the fuzz is no protection against rot.

IN THE SOUTHWEST.

Large farming enterprises are being organized in Arkansas, and the Southwest. Kansas City capitalists have incorporated a company under the name of the Sunflower, Truck, and Fruit Co., to develop a thousand acres of land on the Kansas City Southern Railway, in the vicinity of Lipton, Ark. The crops to be grown are largely fruit crops.

Orange picking began in Florida early in November, and the movement of oranges was under way vigorously by the middle of the month.

The shipment of Florida truck, cabbage, cauliflower, egg-plant and, the like, began to appear in the New York market early in November. Cauliflower sold at \$2 to \$2.50 per barrel, egg-plants, from \$2 to \$2.75 per barrel. Florida peas sold at from \$1.50 to \$1.75 per half barrel basket.

Shippers in the vicinity of Fennville, Mich., are making preparations to bring action against the local railway for the heavy losses sustained in the transportation of fruit this fall. The Fennville Fruit Shipping Association is the active complainant.

APPLES IN STORAGE AND CROP OF 1905.

According to the estimates of the *American Agriculturist* the apple crop of the year just closing is practically one-half of the average of the three preceding years. It appears that New York, Pennsylvania and Michigan contribute twice as much as any other three states of the Union. Virginia, Kentucky and Tennessee have moderate crops, while New England has less than half a normal yield.

It is estimated that on the first of November, there were 125,000 barrels of apples in cold storage in Chicago. The arrivals were not heavy but fairly regular. There were about 500,000 barrels on the Falls road, N. Y., this fall as compared with two to three millions last year at this time. There is confidence among apple dealers that some money is to be made in handling this staple fruit in the year 1905-6.

VEGETABLES IN EASTERN TEXAS.

The conditions among vegetable growers in eastern Texas appear to be very discouraging. The potato crop is one of the staple crops of the region, and in the past has been a standard money maker. Last year potatoes failed. This year many potato planters were unable to raise money to buy seed. The extremely wet weather of the summer of 1905 prevented growers realizing the usual large return from the secondary crops, such as tomatoes, peppers and the like, so that there is a general stringency in the money market of the region. It is probable that a good season or two will set the growers on their feet again, but at present the outlook is rather discouraging.

Interesting Review of the Season.

WAYNE COUNTY, NEW YORK.

Stock here made a good growth last summer, and fall business was better than we expected. The outlook for spring is promising.
Newark, N. Y. JACKSON & PERKINS Co.

THE SEASON IN OHIO.

We do not know as there has been any thing special to characterize the fall trade. We have had all that we could handle. The season has been a very wet one, and too wet for low land; on the other land, our stock made a very fine growth, much better than we have had in the past three years. We think the outlook is that there will be a very large demand for stock for next spring's planting, and with possibly one or two exceptions, all kinds of fruit stock will be sold out, long before spring planting season is over. The demand for ornamental stock has increased materially this fall with us, and judging from the inquiries we are getting from other nurserymen, there is a very heavy shortage on fair size ornamental trees of nearly all kinds. Think the main trouble the nurserymen will have next spring, will be to obtain stock to fill orders.

Painesville, Ohio.

THE STORRS & HARRISON Co.

The season just closing has been highly satisfactory. We have sold up clean on all lines except Apple. The past summer was favorable to the growth of stock with the possible exception of the cherry, which does not take kindly to excessive moisture. Late rains facilitated digging, and the humid atmosphere prevailing through the packing season gave us favorable conditions in which to handle stock. Present outlook is certainly most encouraging.

Xenia, Ohio.

McNARY & GAINES.

OUTLOOK AT PHONETON AND THE MIAMI VALLEY OF OHIO GENERALLY.

A good plant was made last spring and a good stand secured. Also a satisfactory stand of buds from this year's budding; also a good stand of apple grafts. Owing to the wet season, (above the average) two year cherries failed to thicken up, leaving a heavy stock of under half inch trees to carry over into three years. Young apple trees were much freer from aphids than they have been for a good many years. There will be a fine lot of three year olds for coming spring and for next fall. Peach trees were uncommonly fine but there is not a very heavy stock left to carry over for spring. Taken altogether the nursery business in this valley is in very satisfactory shape. Fall trade has been fully up to the average. Very light stock of cherry for spring and they mostly of small sizes.

Phoneton, O.

N. H. ALBAUGH.

IN MARYLAND.

The character of the fall trade has been very satisfactory, the only trouble being that many people want their stock shipped too early, which results in loss of trees to the planter. We felt obliged to refuse several orders for early shipment.

The demand for nursery stock is very promising, and it certainly looks as if we will make some good sales during the winter.

We began digging apple trees in carload lots about Oct. 10th, also running out a few peach trees, but during the next thirty days we shipped peach trees, cherry and Kieffer pear trees in large quantities.

Berlin, Md.

J. G. HARRISON & SONS.

IN NORTH CAROLINA.

The past season has been normal; growth of stock fairly good. We are yet in the midst of our shipping. Trade has been good, deliveries going off nicely with good collections. The only unfavorable conditions we have had this year has been the dry weather during digging season.

Greensboro, N. C.

JOHN A. YOUNG.

TOO MUCH RAIN—LABOR SCARCE—IN MISSOURI.

The growing season with us has been one of the best (as far as moisture is concerned) that we have had in many years, stock in general in this locality has made a wonderful growth with the exception of Cherry and Pear, for these the weather has been too moist and cold at times. Domestica Plum for instance have not made their usual growth in the two year old stock while the one year olds have made a remarkable growth.

We believe the poor growth of two year olds is due to effects of last winter as our one year Plum, Cherry and Pear have made a remarkable growth and in most cases will grade up more favorable than will the two year olds.

Peach and Apple have made a splendid growth and on good land the grades run heavy.

The fall packing season has been the worst we believe we have ever gone through, rain, rain, rain and for weeks it has been impossible to get man or beast onto the land more than three days out of a week. Last week the weather was fine and we made good headway; it has, however, been the first good week in a month or more.

Men are exceedingly scarce and it is almost impossible to get workers at any price, consequently we have been short handed all fall.

The season at first started in rather slow but since the latter part of October we have had all we could attend to, and from the looks of our blocks we are not a bit worried that we will not clean up pretty well by spring.

The outlook for spring business is very flattering, we already have a nice line of orders and they are coming freely without much solicitation, what we need most is a mild winter and a long spring and there will be no question as to the trade.

The writer expects to go East early in December and renew acquaintances.

Nursery, Mo.

H. J. WEBER & SONS NURSERY Co.

H. J. W.

KANSAS.

WET WEATHER; STOCK WELL CLEANED UP.

Our past season was above the normal in rainfall; it was also unusual in that we would have about two weeks of wet weather then two weeks of dry, which made cultivating difficult. Notwithstanding this stock as a rule made better growth than it has with us for the past three or four years. Good stands were secured on all budded stock, and the outlook for prime stock in all lines for next Spring's market is unusually favorable. Our Fall trade was light; but after all Spring planting is coming to be the main one, and Fall Trade is decreasing accordingly. Prices have held about as last Spring with slight decrease on Cherry and Plum. Apple started off for Fall quite slow, but from inquiries coming for Spring we think they will all be cleaned up—the supply of Apple in this vicinity is not up to the average. Demand for Pear quite heavy, and these have about all been picked up; supply of Cherry, Plum and Peach here is small, and no doubt all of this stock will go long before spring at somewhat better prices than were current this Fall.

Topeka, Kansas.

L. R. TAYLOR & SONS.

SOME PERTINENT REMARKS ON THE APPLE SEEDLING SITUATION.

The packing for fall in this part of the West is never heavy at the best. The sales here this fall have not been "the heaviest we have ever had."

We have been without an apple crop in Northeastern Kansas for three years. This year was the worst one of the three. Something has come over the crop each year. Kansas has, however, in other parts raised some fine apples, which are now selling at good prices.

Will this help the demand for apple trees? We think not. One good crop over the West would stimulate planting. Until we have this we must be content.

The seedling situation is not in as healthful a condition as it should be, owing to the utter foolishness of the growers. Conditions never have justified present prices. Judging from their actions almost any of the growers exhibit foolishness enough to become active members of a Kansas legislature! The main problem in the trade seems to be how long can one grow seedlings for less than the cost of production and keep at the business.

You know "time cures all things" and it will this.

No. 1 apple seedlings are now about all sold. There is nothing to keep the price from advancing but stupidity. This we think will give place to common sense finally.

Topeka, Kans.

A. L. BROOKE.

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NURSERYMEN'S MUTUAL PROTECTIVE ASSOCIATION—President, N. H. Albaugh, Phoneton, O.; secretary, George C. Seager, Rochester, N. Y.; Meets annually in June.

AMERICAN RETAIL NURSERYMEN'S PROTECTIVE ASSOCIATION—President, Charles J. Brown, Rochester, N. Y.; secretary, Guy A. Bryant, Princeton, Ill. Meets annually in June.

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PENNSYLVANIA NURSERYMEN'S ASSOCIATION—President, W. H. Moon, Morrisville, Pa.; secretary, Earl Peters, Mt. Holly Springs, Pa. Next annual meeting at Harrisburg, in January.

NATIONAL ASSOCIATION OF RETAIL NURSERYMEN—President, William Pitkin, Rochester, N. Y.; secretary, John B. Kiley, Rochester, N. Y.

Speaking in terms of broad averages, the year about to close has been a very satisfactory one for the importers. It was a little sluggish in midsummer, and buyers seemed over-conservative at times, but the closing weeks

THE YEAR AMONG THE IMPORTERS.

were characterized by brisk buying, especially in the line of bulbs, florists' foreign material, and ornamental shrubs. The importer and jobber found themselves pretty well cleaned up by the middle of November. This is indicative of increased interest in the aesthetics of home-making, augmented work in park improvement, and the betterment of city conditions. The millennium has not yet come, but a marked advance is realized each year. Should not every nurseryman be an enthusiastic promoter of civic improvement organizations?

This continues to be one of the star problems of the experiment station entomologist. Nearly every bug man in the peach growing states, has taken a crack at the *pernicious* scale. The

SAN JOSE SCALE

result has been quite a variety of recommendations. During the past two or three years there has been a greater unanimity of opinion as to the kind of remedy to apply than formerly. Just now we have before us a circular from the Connecticut Experiment Station, at New Haven, giving the results of experiments carried on in 1905 with various "dopes" used against this arch enemy of the orchard interests. Six mixtures were tried. These included five combinations of lime and sulphur, and one mixture of lime and kerosene. The lime and sulphur seems to have done a little the best work. A mixture of 20 pounds of lime, 10 pounds of sulphur, 10 pounds sodium sulphide, and 40 gallons of water seems to have been the most efficient. This mixture costs 78 cents for each 40 gallons, or nearly two cents a gallon. The mixture was made by using the best quality of stone lime, which was slaked with hot water and into which the sulphur and caustic soda were added as soon as the slaking process had generated considerable heat. The boiling was all done by the heat developed in the slaking of the lime. This mixture killed about 95% of the scales.

An important item in this connection is the statement made by the entomologist that the scale continues to breed in Connecticut, until December first. The recommendation is therefore made that fall spraying as soon as the leaves drop be practiced, and that this be supplemented by an additional application of lime and sulphur in early spring.

The development of the pedagogic side of agriculture is moving along at a rapid pace. The agricultural colleges have opened their autumn terms with uniformly increased attendance. Normal schools have established agricultural courses. High schools with definite four year courses in agriculture have been founded in Kansas, in Missouri, and Wisconsin. Other states are feeling their way in the field of the secondary school.

THE PROGRESS OF AGRICULTURAL EDUCATION.

Going abroad we see similar progress. In India an agricultural college has been recently equipped, and has for a beginning class, seventy-seven students. Of course agricultural experiment stations have been in vogue in India for a number

of years. These experiment stations are broadening their scope, and will undoubtedly become teaching institutions in the future. The British government has been making strenuous efforts to introduce agricultural instruction of some kind into the Transvaal educational system. In the West Indies schools are conducted under the Imperial Department of Agriculture, in which practical training in field work, fruit culture, and the like, is given to boys over fifteen years of age.

In Europe the same advances are noted. The Rhine Province has now thirty-two winter schools, directed by the provincial Camber of Agriculture, of which four are twenty or more years old. In the course of the life of these schools instruction has been given to over 11,000 pupils. This type of school is the most specialized form that is to be found in the country. Special courses are given in vine culture, bee culture the utilization of fruit, domestic science, and the like.

We observe also that even Algeria and Turkey are organizing schools for the teaching of agriculture. Algeria opened a school on October 9, where practical instruction in farm and orchard management will be given. At Sionica, Turkey, there has been recently organized a farm school incorporated under the laws of the state of New York. Connected with it, is a tract of fifty-two acres, containing buildings and other equipments. This school expects to do the kind of work that the Hampton and Tuskegee institutes are carrying on in this country. Such is the brief record of the progress of the pedagogical side of agriculture. The influence of the state colleges of agriculture of the United States is becoming each year more wide spread. Every season this country is visited by a number of interested foreigners who come here for the purpose of studying our methods, and examining systems with a view of adapting the best features to the particular conditions in which they are interested. This year, Cornell University numbers among her students, five young men from the province of Bengal, India, who have come for the purpose of qualifying as teachers of agriculture to work in their own country. All this is of interest to the nurseryman because it means more interest in the aesthetic side of agriculture where his activities are largely centered.

This is a subject upon which much has been written in recent years, and it is safe to say that a great deal has been forgotten. A principle is formulated and announced, but it is soon overlooked. This is remarkable when

ADAPTATIONS OF VARIETIES OF FRUITS.

one takes into consideration the fact that perhaps the most dominant feature in the fruit growing of this country is the fact that the majority of our fruits now cultivated on a commercial scale have had their origin at, or near the place where they are most successfully cultivated. Thus it is that groups and families of fruits have developed more or less geographically, and have become peculiar to certain regions. This tendency will be more and more marked as time goes on, but even at the present stage it is well indicated by the varieties grown in the prominent fruit regions of the United States.

Let us consider the older parts of the country, New England for example. Here we find certain well marked groups of fruits peculiar to the region. The same is true of the Atlantic section. The Carolinas have apples peculiar and characteristic to that region; the Ozarks are noted for the big red apples of

the Ben Davis type; Georgia is developing a strain of peaches peculiarly adapted to its own conditions; Texas, strains of grapes and plums suited to its tremendous variety of soil and climate. Though the northwestern states have made notable progress in this important line of originating varieties adapted to trying conditions, the large share of the work, however, still lies in the future. Enough has been accomplished in these various regions to thoroughly substantiate the truth and importance of these statements.

This sectional development then emphasizes the importance of the geographic variety. When each district has produced in its own midst and under the influence of its own conditions groups of varieties, then and only then, are we likely to approximate the possibilities of the region as a fruit growing section, and when we do this we shall realize the great importance of selection based upon climatic adaptation.

We have at the present time quite a number of well marked groups, which can be characterized as the products of certain regions, in other words, geographical groups. In the upper St. Lawrence River section of Canada, is found in abundance and in a great variety, members of the Fameuse apple group. Away down at the sea in Nova Scotia, the pippins and russets prevail, and here and there is a tendency exhibited for certain varieties which seem naturally adapted to the maritime conditions, to sport in a remarkable degree. In the Northwest, the crab hybrids, as typified by Wealthy, Gideon, Martha, Quaker and other more distinctly crab like forms, represent the beginnings of a race destined to meet the requirements of that severe region. In the middle West, the Ben Davis group is predominant, while farther South, still other types prevail.

The question now is whether growers of trees should not observe with some degree of care the natural home of each variety in encouraging its distribution. Is it not as much a mistake to attempt growing Ben Davis in Massachusetts as Baldwin in Arkansas; Jonathan in Vermont, as Fameuse in Indiana? In the distribution of varieties could not the business of the nurseryman ultimately be served better by more careful attention to this phase of an important subject? Should he not, in other words, study with more diligence the matter of adaptation of varieties to certain geographic regions?

While the year about to close has not given us a record of extraordinary events, it has nevertheless witnessed several horticultural features of more than passing interest.

HORTICULTURAL FEATURES OF 1905.

It has been an exposition year. "Nothing remarkable about this," you say. True enough, but the exposition of this year was a financial success! Herein lies the unusual. The Lewis and Clark Exposition more than cleared expenses. The horticultural display was good.

The annual meeting of the American Association of Nurserymen was the best yet held. The program was excellent, the exhibits numerous and instructive.

On the whole, the year has been fairly satisfactory to the grower of trees. Prices have not been maintained as firmly as desirable in all lines, but collections have been easy. As a growing season, the nurseryman has no serious kicks to register, although rain did not fall at the right time and in the right quantities in all parts of the country. The seedling apple

section of the West was again visited by excessive rains in late summer, but the damage was not disastrous.

Among the features filling newspaper space and attracting considerable public notice, were the exploitation of nitro-culture by business houses; the vigorous manufacture of pure cultures of mushroom spawn; the widespread publicity given to the Spencer-Seedless Apple, and finally the extrayagant and inaccurate statements regarding the accomplishments and endeavors of Luther Burbank, the plant breeder of Santa Rosa, Cal. Nitro-culture was presented by the U. S. Department of Agriculture to the farmer as an important method of adding to the fertility of the soil through the good offices of civilized bacteria cooperating with plants, and was immediately seized upon and exploited by commercial agencies as a never-failing cure-all and panacea for all depleted soils. The furore passed quickly, and the public is now gradually absorbing the true import of the discovery.

Through the efforts of Prof. B. M. Duggar of Columbia, Mo., working in co-operation with the Bureau of Plant Industry, there have placed upon the market a number of varieties of mushroom spawn, "pure cultures," grown direct from the tissues of the mushroom and not from the spore. By this means desirable variations are perpetuated and multiplied.

The Spencer-Seedless Apple announced in 1904 has been vigorously advertised and propagated this year, and arrangements are being perfected for its sale. In the meantime the apple has been seen and examined by experts pronounced unworthy of cultivation by most and passable by others. The methods which the company are taking to introduce the variety are peculiar, to say the least, if they are not above criticism. Undoubtedly the thing will have to run its course, like any other epidemic. In due time there will in all probability be many disappointed planters.

The severe attack of "Burbankitis" which many of the recognized and standard periodicals suffered during the year was brought to a fitting climax by the appearance of Harwood's book on the life and work of Burbank. Very few of the few flamboyant periodical articles exceed this book in point of glaring inaccuracy and arrant overstatement. The gratifying feature about the whole incident is that we are furnished with indubitable proof that interest in the improvement of plants in particular and horticulture in general is on the increase.

The editorial office of the NATIONAL NURSERYMAN was favored recently with a visit from Mr. G. Harold Powell, of the Division of Pomology, Department of Agriculture, Washington.

HANDLING AND TRANSPORTING FRUIT. Mr. Powell's special work is the handling of fruit in cold storage and in transit. For the past five years, he has devoted practically his whole time to the study of the

various problems connected with this part of the fruit business. Last winter he spent several months with an assistant, on the Pacific Coast, studying the packing and transporting of citrous fruits. He was fortunate, or perhaps it would be better to say clearsighted enough to be able to detect certain weaknesses and defects in the manner of picking and packing the fruit, which when pointed out to the business fruit growers of that hustling region, impressed them at once as being very important. California

shippers did not realize that certain careless methods of harvesting, injured oranges in terms of percentages from 15 to 35%. Then again, Mr. Powell and his assistant, Mr. Tenney, were able to demonstrate that certain of the mechanical packing devices were instrumental in injuring the skin of the fruit to a very serious extent. One must remember that the smooth skin of the orange is its protection, that when this is broken the spores of *Penicillium* and other destructive fungous moulds find entrance, and the life of the fruit is shortened, and its salability greatly reduced.

In speaking of the citrous industry of the coast, Mr. Powell, says: "no one can help being greatly impressed with the aggressiveness and business activity of the men who grow the great citrous crop, the lemons and oranges in California. Nowhere in the fruit world is there such fine illustrations of business methods as can be found in some of the California fruit exchanges. Here the packing and distribution of fruits are reduced to mechanical precision. This is largely the outgrowth or result of the business training of the men who have engaged in the industry. The majority of them did not grow into it from the ranks of the farmer, but rather diverged into this field from the paths of the business man."

Mr. Powell expects to spend the coming winter on the Pacific Coast again, continuing the investigations which were inaugurated last season. The work is meeting with the hearty approval and active co-operation of the best fruit concerns of the Coast, and the Division of Pomology is to be congratulated in doing such effective practical work. It is the dealing with live problems of this type that emphatically justifies the existence of the Bureau.

RETIREMENT OF A NOTED PLANT BREEDER.

H. A. Terry, of Crescent, Ia., is known to all the prominent fruit growers of the Mississippi Valley as the originator of the Hawkeye, Terry, and other desirable varieties of Americana plums. Mr. Terry is also an enthusiast in the growing of peonies. He has grown them from seed for years, and has originated a large number of desirable forms.

The news comes to us that Mr. Terry has sold out his business, and has now retired. He is on the border line of the eighty year mark, and should retire with a feeling that he has contributed substantial benefits to his fellow-beings. The noted plum man, J. W. Kerr, of Denton, Md., has the following to say regarding Mr. Terry's work in originating plums: "In the two varieties, Wilton and Mrs. Cleveland, originated in Iowa by my esteemed old friend and veteran in the cause of fruit growing, H. A. Terry, the fruit growing public received two varieties of plums unequalled in market value by any others in localities where this type is hardy." This is high praise, but undoubtedly deserved.

MAPLE SUGAR INDUSTRY.

The Bureau of Forestry is interesting itself in the maple sugar industry. A somewhat careful study of sugar making has been made, covering a period of forty or fifty years, and the causes for shrinkage in one locality and expansion in another have been studied. As a result of this study, directions for the management and improvement of existing groves and for the establishment of new ones in suitable localities are being prepared, and will very soon be published. This pamphlet will include methods of tapping as well as methods of evaporating the maple sap.

Diluting the Benefits of New Discoveries.

In this age of rapid agricultural development, an age of remarkable business acumen, every investigator runs much danger of having his latest discovery so warped and twisted by scheming promoters, that the public is often set against it so early in the day, that the real purposes of the discovery or invention are thwarted. We have seen an example of this in the over advertising and exaggerated claims made for nitro-culture. This method of increasing the fertility of the land was seized upon by men who were anxious to make a fortune in six months, and misrepresentation and exaggeration of the benefits of the method resulted. The final effect was to discredit the whole principle, and it will be some time before a sane and reasonable view of this important advance in agriculture is held by the rank and file of the farming public.

Within the last two or three years some of the experiment station experts have succeeded in propagating special strains of the edible mushroom by using pure culture. This method is now being exploited by certain companies, and exaggerated claims are being made for it. Disappointment is sure to follow. The *New York Packer* says that there seems to be a gang of mushroom spawn swindlers operating over the country,

and from the number of complaints received by the *Packer*, they must have caught many victims.

The truth of the matter in this connection is that there are just as many difficulties in growing mushrooms as ever, and the only difference between the pure culture spawn and the ordinary spawn is that when you get the former, you are securing a specific variety of the mushroom. It may be a light colored or dark colored type, but you know which it is when you buy it. That the spawn is more vigorous and will produce mushrooms with greater certainty is hardly claimed by the manufacturers of this "form of seed." But it is a decided satisfaction to be able to grow a definite specific thing. Therefore the production of pure culture spawns is a line of work that is to be recommended. Let people understand that there is nothing magic about it, nothing extraordinary, but that instead of growing seedling mushrooms, you are growing recognized varieties. Have no wish to discredit the straightforward honest efforts of those companies which are exploiting these cultures on their merits, but there are "methods and methods."

Washington, D. C.

OBSERVER.

Fruit and Plant Notes.

BIG RETURNS FROM APPLES.

This will be a year for large stories about profits in apple growing. When prices range above \$2.50 a barrel, there is big money for the grower of apples. One orchardist at Penn Yan, N. Y., is reported to have sold 3,000 barrels from thirty acres of land for \$2.90 a barrel, the buyer furnishing the barrels. This is a tidy sum for a thirty acre farm, with an outlay for the year of probably not more than \$10 an acre.

GRAPE PRICES.

The price of grapes continued to advance throughout October, and by November first, growers were holding their prices double that asked or expected last year.

PLUMS FOR HOME AND MARKET.

The Ohio Experiment Station at Worchester, has recently issued an excellent bulletin on plums. The three leading classes of plums are included, namely, European, Japanese and the very much mixed native group. Of the European varieties, Clyman, Czar, Lincoln, Bradshaw, Field, Lombard and Empire, are among the varieties specially mentioned. Of the native sorts, Poole, Wilder, Hunt and Downing, are fully described, and of the Japanese, Berger, Red June, Burbank, Chabot and October Purple, are recorded as the leading sorts.

In the hybrid section, Apple, Gonzales and Nona have commended themselves to the writers of the bulletin.

POPULAR VARIETIES OF NUTS.

At the last meeting of the Nut Growers' Convention, an informal ballot was taken to ascertain the preferences of members for the different varieties of pecans cultivated in the Gulf States. Members were asked to name in order of preference five or six varieties which they favored. It was found that there were eighteen varieties mentioned in these lists. One variety mentioned in every list was the Stuart. Other popular kinds were Van Deman, Frotscher, and Schley. The second class graded on order of popularity were Pabst, Georgia, Curtis and Russell. The third class included Alley, Gregg, Halbert and Money-maker. The fourth class included Atlanta, Magnum, Senator, Stevens and Success. This sort of a test gives an exhibit of the relative popularity of varieties and the present trend of planting.

The report of the proceedings of the 13th annual convention of the National League of Commission Merchants by A. Warren Patch, Secretary, Boston, has just been received. The convention was held at New Orleans, Jan. 11, 12, 13, 1905, and the secretary is to be congratulated in presenting thus promptly to the members of the Association this interesting and well edited report.

BUSINESS MOVEMENTS.

The Iowa Nursery Co. was organized in Des Moines early in October. Martha Drotz, late of the Watrous Nursery Co., is the organizer.

At Dayton, N. Mex., there was organized October 30th, the Dayton Orchard and Nursery Co. The officers are W. H. Chisholm, John S. Kerr, and D. W. Gullic, of Sherman, Tex. These men will be associated with W. H. Chisholm and E. C. Higgins, of Dayton, N. Mex. The purpose is to grow orchards, alfalfa and nursery stock.

Mr. Samuel C. Moon, of Morrisville, Pa., has recently purchased seven acres of land, overlooking the Delaware River and Trenton, on Morris Heights. This block is to form the home estate of Mr. Moon. He will here build a home and beautify the grounds.

ELM CITY NURSERY CO. ENLARGMENT.

A large new frame building is being erected for The Elm City Nursery Co. at their nurseries at Edgewood, to be used for storage and packing purposes, increasing materially their facilities in this direction. They are also putting up a large tank and tower for an increased water supply. The nursery is enjoying such a rapid increase in their business that additional facilities are demanded.

SHENANDOAH VALLEY ORCHARD CO.

A large orchard company has recently been organized in the Shenandoah Valley. This is styled the Shenandoah Valley Orchard Company, having headquarters at Mount Jackson. It has been incorporated with a capital of \$50,000, and its aim is to plant and maintain commercial orchards in Shenandoah County.

AMONG THE EXPERIMENT STATION WORKERS.

INDIANA. Bulletin No. 102, Agricultural Station Experiment, Lafayette, Ind., is by James Troop, and is devoted to apple growing in Indiana. It treats the subject in a popular and interesting manner.

BUREAU OF FORESTRY, WASHINGTON, D. C. Circular No. 33 contains a digest of the addresses delivered at the American Forest Congress held in Washington, January 3 to 6, 1905. This Congress was significant in showing the widespread interest of this movement, which has for its purpose the reforestation and conservation of lands not valuable for ordinary agricultural purposes.

CONNECTICUT. Fourth report of the State Entomologist published by the experiment station at New Haven. A very valuable report largely devoted to the description of experiments and methods of treating San Jose scale and other noxious insects. A considerable portion is devoted to a report of a mosquito survey of Connecticut with suggestions for the control of this pernicious disease carrying insect.

The Ontario Horticultural Exhibition and Convention.

Great Display of Fruits and Vegetables--Important Addresses.

[SPECIAL REPORT FOR NATIONAL NURSERYMAN.]

The Horticultural Exhibition held in Massey Hall, Toronto, from 14th to 18th of November, was acknowledged by all who saw it to be the finest display of fruits, flowers, and vegetables ever got together on the Continent, and united with this exhibition there was an exhibition put up by the Bee Keepers' of the Province.—[Strong claim.—Ed.] The generous prizes offered brought out strong competition in nearly all classes of fruits, flowers, and vegetables, and special encouragement was given to the commercial exhibits of fruits put up in boxes and barrels ready for shipment. The Ontario Fruit Experiment Stations, of which there are fourteen in number, also contributed largely to the display and made valuable educational exhibits showing fruits which have been found most desirable in the various parts of the Province; and in many cases also samples were shown of those which have been tested and proved unsuitable in various sections. The desirable varieties were mostly exhibited in large pyramids and were labelled with large placards calling attention to their value for home use or market. An excellent exhibit of fruits was also shown by the Dominion Experimental Farm, Ottawa, and the Ontario Agricultural College, Guelph. A valuable educational feature of the College exhibit was the display of insects and fungus diseases affecting garden and orchard crops.

FINE VEGETABLES AND BEAUTIFUL FLOWERS.

The display of vegetables was exceptionally fine for this season of the year and in nearly every one of the 60 sections on the prize list, there was keen competition and good specimens shown. This is the first time that the Vegetable Growers have made an exhibit at the winter show, and the excellence of this winter display is evidence that this feature of the Exhibition will readily develop.

The Toronto gardeners and florists have long been noted for the excellence of the exhibits which they have been making from year to year in their annual chrysanthemum show. This year they seem to have beaten their record, and the beautiful display of chrysanthemums, carnations, begonias, orchids, ferns and palms interspersed with the fruit exhibits throughout the building made Massey Hall a dream of fairyland.

One of the horticultural features which attracted great attention was the table decorations. These have come to be one of the prominent features of the exhibition, and the taste shown in the tables set by half dozen of more exhibitors called forth unstinted praise from all present.

ADDRESSES BY PROMINENT SPEAKERS.

In connection with the Horticultural Exhibition, meetings were held throughout the week at which important subjects were discussed relative to the different branches of horticulture. The Ontario Fruit-growers held two days convention, at which addresses were delivered by the Hon. Sidney Fisher, Minister of Agriculture for the Dominion, and the Hon. Nelson Monteith, Minister of Agriculture for Ontario. Addresses were given which included such subjects as cultivation, cover crops, spraying, grading, packing, shipping, marketing, and also the Canadian Tariff on fruits coming into the country.

Mr. A. N. Brown, of Wyoming, Delaware, gave valuable information on new ideas in spraying and fighting the San Jose Scale. One whole day was given to the work of the Fruit Experiment Stations, and the experimenters present gave their experience with the varieties which had proved most satisfactory in their experimental orchards, vineyards, and plantations.

VARIETIES OF FRUITS RECOMMENDED.

Mr. W. H. Dempsey, Trenton, spoke on the most desirable new varieties of apples which had appeared among the four hundred kinds he had under test. Among the most promising is Coe's River Beauty, a variety introduced a few years ago from California.

Mr. Harold Jones of Maitland spoke on the fruits which had proven hardy enough to stand the climate in the eastern part of the Province, which his Experiment Station represented. His most profitable varieties for the home or foreign market are Fameuse, McIntosh, and Scarlet Pippin. All of these varieties did exceptionally well in the St.

Lawrence Valley. He is still looking for a good winter variety, hardy enough for that section.

Mr. W. W. Hilborn of Leamington, from the most southerly portion of the Province, spoke on "Peaches for Profit," and dwelt upon the subject of pruning, thinning, and winter protection of the roots. He mentioned the following as the most desirable varieties to cover the season from early to late: Alexander, St. John Bri den, New Prolific, Engol Mammoths, Elberta, Crosby, Kalamazoo. Golden Drop, Banner and Smock.

Mr. G. C. Caston of the Craighurst Station in the northern part of the Province, reported upon cherries sufficiently hardy to withstand the climate in his section of the country. None of the sweet varieties are hardy enough. Among the most desirable of the sour varieties are: Ostheim, Orel 24, Russian 207, Bessarabian, Montmorency, and Dye-house.

Mr. A. E. Sherrington of the Walkerton Experiment Station reported upon raspberries for profit, and took up the question of their growing and cultivation. He has found Herbert, a Canadian seedling originated a few years ago with R. B. Whyte of Ottawa, the most productive variety he has yet tested. This variety has proven itself exceptionally hardy wherever tested, and is a valuable acquisition to the list of raspberries. The purple varieties, such as Columbia and Shaffer, had proven very productive, but were not so acceptable on the market as the brighter colored varieties, such as Cuthbert and Herbert.

Mr. A. W. Peart of the Burlington district reported upon his experiments with currants, and discussed fully the matter of cultivation and pruning. Wilder, Cherry, and Pomona are his favorite red varieties. Saunders and Victoria the best black, and White Grape the best white variety.

Mr. M. Pettit of the Niagara Peninsula took up the subject of grapes and gave a list of those he found most desirable for profit among the two hundred varieties he had under test. His choice varieties are:

Black: Concord, Worden, Wilder, and Campbell's Early. Red: Delaware, Lindley, Agawam, and Catawba. White: Niagara and Moore's Diamond.

CONFERENCE OF VEGETABLE GROWERS.

The Vegetable Growers' Association, which was organized last spring, held its first Annual Meeting in connection with the Exhibition. Mr. W. T. Macoun of the Central Experimental Farm, Ottawa, gave a list of the varieties of vegetables which had proved most satisfactory at Ottawa; and Prof. Hutt of the Ontario Agricultural College, Guelph, gave a list for comparison of those which had proved most satisfactory at Guelph. Prof. Zavitz of Guelph reported upon his experiments in potato culture, and Mr. Jarvis of Guelph dealt with the insect and diseases affecting garden crops. The question of Commercial Fertilizers for the Vegetable Growers was introduced by Prof. R. Harcourt of Guelph, and Vegetables under Glass was discussed by Mr. J. L. Hilborn of Leamington. The lively discussions which followed the addresses showed that the Vegetable growers were keenly on the alert for information, and the interest taken in the meetings was good evidence that they are bound to give their work more prominence than it has yet received in public discussions.

NEW ASSOCIATION FORMED.

There are throughout the Province about fifty local Horticultural Societies which have been doing good work in towns and cities in encouraging amateur horticulture, especially along the line of floriculture and Civic Improvement. These associations were organized by the Provincial Fruit Growers' Association and have been so far affiliated with it. The delegate present at the Convention this year decided that it would be advisable to form an independent organization, to be known as the Ontario Horticultural Association. Officers were elected, and the Executive instructed to prepare a constitution and bylaws for ratification at the next meeting. Horticultural work in all its lines is thus well organized throughout the Province, and we look for rapid development in the years to come.

H. L. H.

Doings of Societies.

The 31st Convention of California State Fruit Growers will be held at Santa Rosa, December 5 to 8, 1905. The arrangements for the meeting are in the hands of Mr. Elwood Cooper, State Commissioner of Horticulture, Sacramento.

NUT GROWERS MEET.

The National Nut Growers' Association will meet in Dallas, Texas, on the 7th, 8th and 9th of December. This is the second change of date which has occurred in connection with the meeting. The Dallas people are preparing an elaborate series of local entertainments and the event promises to be of unusual interest. An exhibition of nuts will be one of the features. The secretary is Mr. J. F. Wilson, Poulan, Ga. A successful meeting is expected and fully deserved by those stirring people.

AMERICAN CIVIC ASSOCIATION.

RAILROAD IMPROVEMENTS.

This organization has recently issued a very noteworthy though modest pamphlet entitled "Railroad Improvements." It is the report of Mrs. A. E. McCrea, vice-president of this department, presented at the last annual meeting, and contains a most interesting account of the progress of railroad improvement work, together with the personal opinions of prominent railroad men regarding its value to the railroads. Mrs. McCrea has been the landscape architect of much of the improvement work which has taken place along the lines of the Chicago & Alton, Illinois Central, Chicago & Rock Island, Burlington & Quincy, the Northwestern and the Milwaukee Roads, during the past four or five years. This valuable work has gone on quietly, but at the same time so steadily, that important and substantial progress has been made. Many travellers have failed to note it, but there is probably no better opportunity of educating the public along the line of civic and general aesthetic improvement than by decorating and harmoniously planting the grounds adjacent to the way stations of these great arteries of trade and commerce.



View along a main drive in the Andorra Nurseries, Chestnut Hill, Pa.

Wedding Bells.

The NATIONAL NURSERYMAN staff extend their hearty congratulations and best wishes to Mr. George Lindley Taber, Glen Saint Mary, Fla., on the occasion of his recent marriage to Miss Willey of Brookline, Mass. Mr. and Mrs. Taber will be at home in Florida after December 15, 1905.

TRANSPLANTING LARGE TREES.

A new method of handling large trees is described in the American Inventor. It avoids handling the tree by its trunk, so that the most vital as well as the most tender part, the bark, is saved from injury. A heavy, flat steel ring, constructed in sections and six feet in diameter, is laid around the tree. The sections are then securely bolted together, so as to form a rigid platform. In the ring at regular intervals are apertures, with guides, through which curved shovels are driven down.

These practically enclose the tree roots in a circular steel basket. The transporter, a bottomless circular wagon, with an opening at the rear, is now backed into position, so that the tree trunk occupies its center. Then hoists pulling on the steel basket, lift the latter up bodily with tree, roots and earth. The tree is then made to recline at an angle, and the transporter is driven to the spot where the replanting is to take place. This process is simply a reversal of the former one, the tree being hoisted back into an upright position, the steel basket dropped into the hole ready for its reception, the shovels removed one by one, and all holes filled with earth stamped down. Two men can work the entire apparatus, and so little injury is done to the tree that the leaves do not even wilt.

—Country Gentleman.

Our Book Table.

Proceedings of the American Forestry Congress, held at Washington, D. C., January 2 to 6, 1905. Published by the H. M. Suter Pub. Co., Washington, D. C., 5 x 7½, 474 + XI pages.

This volume contains the papers and impromptu speeches made by the delegates who attended this very important congress, held at Washington, last winter. It was really a remarkable gathering. It included prominent men in all fields of agricultural and arboricultural endeavor.

This congress was undoubtedly a potent factor in stimulating their interest in large movements which pertain to forestry and irrigation the country over. It was a distinctive agent of uncommon strength. The volume contains the point of view of a great many students on the question and is replete with facts bearing upon the economics of forestry in almost every state in the union. It is a valuable contribution to the literature of the subject and the volume should be in all libraries, private and public. We heartily commend this publication.

Obituary.

Dr. Hermann Schroeder, Bloomington, Ill.: Notice

of the death of this remarkable and interesting personality has been unwittingly omitted from these columns. Dr. Schroeder was a Prussian who left his native country on account of pronounced republican leanings about half a century ago. Coming to this country he made a home at Bloomington, Ill., and there became intimately associated with the development of the natural resources of the country. For a number of years he was enthusiastically engaged in promoting grape culture throughout the West, and not only did he grow the grapes, but he grew vines in large quantities which were shipped to France for the purpose of providing French vineyardists with phylloxera resistant stocks. Dr. Schroeder has been a frequent contributor to the horticultural press of the country, and has always been a warm friend of the NATIONAL NURSERYMAN. In his death one of the striking characters of the middle West has been removed. C.

—The Gardeners' Association of America held a meeting on November first at the time of the meeting of the American Institute in New York City. John M. Hunter, president, occupied the chair, and presented an address. The secretary of this organization is C. E. Maynard.

—Illinois State Horticultural Society is preparing for an important meeting at Champaign, December 12 to 15. This will celebrate the semi-centennial of the society, and the program will cover the early history of the organization, in its various aspects, besides dealing with present day problems. The secretary is L. R. Bryant, Princeton, Ill.

ORLANDO HARRISON—LEGISLATOR.

Orlando Harrison, of Berlin, Maryland, member of the House of Delegates, from Worcester county, was born in Delaware. He is the oldest son of J. G. Harrison, has been a life-long Democrat, has never before been on a State ticket, and led the Legislative Ticket in Wor-

cester county on Nov. 7th. He has held many prominent offices in Horticultural lines.

Mr. Harrison is Ex-President of the Peninsula Horticultural Society, State Vice-President of the Maryland State Horticultural Society, Vice-President of the American Association of Nurserymen.

He is now Mayor of Berlin for the third term. Vice-President of the Exchange and Savings Bank of Berlin, and is director in several financial institutions in the country and the business manager

and partner of the nursery firm of J. G. Harrison & Sons, who are among the largest growers of peach and apple trees in the United States. He attends strictly to business, and by close attention, has built up a business that is a credit to the firm, to the county, and to the State.

He is also interested in the largest apple orchard in Maryland, planted in Washington county, he has the respect and confidence of the people at home, and is well known to the horticulturists of the United States. He is a strong advocate of good roads, and has offered his assistance repeatedly along that line.

The firm cultivates more than one thousand acres in the nursery, and employ more labor than any other firm or corporation operating in Worcester county.

There is a strong sentiment for the saloons to be wiped out. Worcester is the only saloon county of the Eastern Shore, and is made the dumping grounds for the drunks of other counties. It is evident that the representative citizens of the county will ask the Legislature for a vote on same. "Wet or Dry."

Mr. Harrison speaks as follows regarding the campaign:

EDITOR NATIONAL NURSERYMAN,

Dear Sir:—I notice your mention of my Candidacy to the Legislature in your last issue. I am pleased to say I was elected to the Legislature, and had the hearty support of the nurserymen, and lead the Legislative ticket, yet I want it understood that I pride myself on being a nurseryman, more than a Legislativeman, and only accepted the latter at the request of my friends, but have not allowed it to interfere with my business.

The campaign was a peculiar one, and resulted in a stand for the saloon or no saloon. I was strongly endorsed by the Anti-Saloon League, and received many complimentary votes, therefore I will be recognized as the Anti-Saloon Candidate, and the people will ask for a vote on this question. Never before have the people been aroused to such an extent on the Saloon Question.

If any nurserymen has any suggestions or criticisms to make on the present Maryland Laws pertaining to shipping trees in our state, I would be glad to hear them, as I assure you the nurserymen of this state are not selfish, and will be glad to labor for the removal of any serious objectionable features at the next Legislature.

Berlin, Md.

ORLANDO HARRISON.

PROSPERITY IN TEXAS. PREPARATION FOR ANNUAL MEETING.

The nurseries of Texas are well stocked up this year. The largest growers have issued trade lists, and are doing a wholesale as well as retail business.

All reports show a good lot of orders and returns from deliveries now in progress show collections A1.

We are working under an inspection law this year, and from a conversation I had with the inspector, Mr. A. W. Orr, he has found the Texas nurseries comparatively free from injurious insects and diseases.

All the committees appointed by the Texas Nurserymen's Association for the purpose of entertaining the American Association of Nurserymen next June, are hard at work, and we will show our brother nurserymen a good time at the biggest nurserymen's convention they have ever attended.

EDWARD KNOX,
Vice-President for Texas, A. A. of N.

BEAUTIFUL AUTUMN IN CALIFORNIA.

November has passed its meridian and winter—December cold and bleak, is fast upon us—at least with you—but not just that way with us. Day after day we are having clean clear sunshine, warm and delicious, such as all take delight in; such weather as you sometimes experience in June.

Nursery trade here is just about opening. All deciduous trees, roses and shrubs will be planted any time from December to April. The season for planting orange trees for 1905, is now past; will begin again in February, and continue to suit ones convenience till September.

The season has been fairly prosperous, business generally good, and there is abroad in the land a feeling of prosperity. The orange output which is the largest industry we have in Southern California, promises well; whether it will equal that of the past season some thirty thousand cars is questionable. Reliable judges place the figures quite a little less.

Many farmers hereabout are still haying. As one drives along the roads he may hear the click of the mower in the alfalfa, see it raked in the field, or on the road to market. Six to seven crops a year of alfalfa are cut as a usual thing, and if the soil is good and deep, and is given plenty of water, the harvesting during the season to the acre of ten ton is by no means unusual.

Riverside, Cal.

E. A. CHASE.

NATIONAL NURSERYMAN,
Rochester, N. Y.

Gentlemen:—

I have received communications from some of the Western Nurserymen, stating that they had not received the benefit of the change in classification secured in our meeting at Charlivox, Michigan, last July.

This change went into effect October first. If there are any nurserymen who have been charged freight on 20,000 lbs. as a carload in cars under 36 ft. 6 in. I would call their attention to this matter, so they can file claims for overcharge.

This rule going into effect as late as October first, there would be a great many local agents who would not notice the change unless their attention was called to it by the shipper.

This change should apply to all territories east of the Rocky Mountains and west of the Mississippi River except the state of Texas, part of Louisiana, Indian Territory and Oklahoma. This Southwestern territory being governed by the Southwestern Tariff Committee.

Yours respectfully,
W. C. REED.

Chairman of the Transportation Committee
American Association of Nurserymen.

COLONIST RATES.

The Pacific Coast points, via Wabash Railroad, \$42.50. Low rates to intermediate points. On sale Sept. 15th to Oct. 31st. For full information see your local ticket agent or write R. F. Kelley, G. A. P. D., or James Gass, N. Y. S. P. A. Wabash R. R., 287 Main Street, Buffalo, N. Y.

Legislation

CONTRIBUTIONS TO THE FUND FOR CARRYING ON THE IMPORTANT LEGISLATIVE COM- MITTEE WORK OF THE AMERICAN ASSOCIA- TION OF NURSERYMEN.

	Amount
Morey & Son, Dansville, N. Y.....	\$ 5 00
McNary & Gaines, Xenia, Ohio.....	5 00
I. E. Ilgenfritz & Sons, Monroe, Mich.....	10 00
Goode & Reese Co., Springfield, Ohio.....	25 00
McHutchinson & Co., New York City, N. Y.....	5 00
Storrs & Harrison Co., Painesville, Ohio.....	25 00
F. & F. Nurseries, Springfield, N. J.....	10 00
Charleton Nur. Co., Rochester, N. Y.....	5 00
Farmer Nursery Co, Tippecanoe City, Ohio.....	10 00
David Hill, Dundee, Ills.....	10 00
Geo. Kellogg & Sons, Janesville, Wis.....	5 00
Peters & Skinner, North Topeka, Kans.....	5 00
H. M. Simpson & Sons, Vincennes, Ind.....	10 00
Clinton Falls Nur. Co., Owatonna, Minn.....	10 00
Nichols & Lorton, Davenport, Iowa.....	10 00
Alabama Nursery Co., Huntsville, Ala.....	25 00
A. Willis, Ottawa, Kans.....	10 00
Geo. L. Tabor, Glens St. Mary, Fla.....	10 00
Geo. Achelis, West Chester, Pa.....	5 00
Thos. Meehan & Sons Inc., Dreshertown & Germantown, Pa....	25 00
E. S. Welch, Shenandoah, Iowa.....	25 00
The W. H. Moon Co., Morrisville, Pa.....	5 00
John S. Kerr, Sherman, Texas.....	10 00
H. J. Weber & Sons Nur. Co., Nursery Mo.....	10 00
George Bros., Penfield, N. Y.....	5 00
Stark Bros. Nur. & Or. Co., Louisiana, Mo.....	50 00
D. S. Lake, Shenandoah, Iowa.....	25 00
Marshall Bros., Arlington, Nebr.....	10 00
Greens Nursery Co., Rochester, N. Y.....	10 00
Des Moines Nursery Co., Des Moines, Iowa.....	5 00
Sious City Nur. & Seed Co., Sious City, Iowa.....	2 00
L. R. Taylor & Sons, Topeka, Kans.....	10 00
Youngers & Co., Geneva, Nebr.....	10 00
W. F. Heikes, Huntsville, Ala.....	10 00
Davis County Nurs., Salt Lake City, Utah.....	15 00
Ellwanger & Barry, Rochester, N. Y.....	25 00
P. J. Berckmans Co., Augusta, Ga.....	10 00
W. & T. Smith Co., Geneva, N. Y.....	25 00
Oregon Nursery Co., Salem, Ore.....	25 00
Jewell Nursery Co., Lake City, Minn.....	10 00
N. H. Albaugh, Phoneton, Ohio.....	5 00
Texas Nursery Co., Sherman, Texas.....	10 00
E. P. Bernardin, Parsons, Kans.....	5 00
Chase Bros Co., Rochester, N. Y.....	25 00
Bobbink & Atkins, Rutherford, N. J.....	10 00
Geo. Peters & Sons, Troy, Ohio.....	50 00
Phoenix Nursery Co., Bloomington, Ills.....	25 00
G. H. Miller & Sons, Rome, Ga.....	10 00
Albertson & Hobbs, Bridgeport, Ind.....	10 00
Sherman Nursery Co., Charles City, Iowa.....	10 00
Washington Nursery Co., Topeenish, Wash.....	5 00
Wild Bros. Nursery Co., Sarcoxie, Mo.....	10 00
Samuel C. Moon, Morrisville, Pa.....	2 00
	\$ 699 00

November 29, 1905.

VERY LOW RATES.

To Western and South-Western points, via WABASH R. R. from Buffalo. Tickets on sale the first and third Tuesdays during November and December. Full information. Write R. F. Kelley, or James Gass, 287 Main Street, Buffalo, N. Y.

DECEMBER OFFERINGS.

Blackberries, strong, from root cuttings, by D. Baird & Son, Baird, N. J.

Notice the poetical and practical offerings of C. W. Stuart & Co., of Newark, N. Y.

Now is the time to bed or plant peach pits. Write Wittman & Co., Baltimore, Md.

Apple seedlings—half a million still on hand by F. W. Watson & Co., Topeka, Kansas.

Apple grafts are put up on order only by the Bridgeport Nurseries, Bridgeport, Ind.

Harrison's of Berlin, Md., is fast becoming the great variety fruit firm of the Atlantic coast.

A large list of ornamentals and shade trees is carried by Rakestraw & Pyle of Kenneth Square, Pa.

Beware of mice in the young orchard. The Burlington (Ia.) Basket Company make veneer tree protectors.

Now is the winter of our discontent made glorious summer by the roses of the California Rose Co., Los Angeles.

Chas. F. Meyer, 99 Warren street, New York, is agent for the famous French house of Victor Détriché, Angers, France.

Greenhouse cypress of the finest quality and in large quantity is offered by the Burnham-Hitchings-Pierson Co., New York.

Interest in Roses of all kinds still keeps up. The Leedle Floral Company, Springfield, Ohio, grow a large assortment of own root plants.

The Premier Span Roof Garden Frame is a new style of greenhouse construction being manufactured by C. H. Manley, St. Johns, Mich. These vary in price from \$20 to \$2,000.

PEAR BLIGHT AND BODY CANKERS.

Mr. W. H. Whetzel, of Cornell University has been studying the relation between the recognized forms of twig pear blight and different types of limb and body cankers of apple trees. Of the latter, he groups them under limb and body cankers, crotch cankers, pruned stub cankers, collar cankers and scurfy blisters of body and limbs. Experiments made by Mr. Whetzel appear to demonstrate that most of these cankerous affections are nothing but peculiar forms of the well-known twig blight. This is a very important discovery, when we consider that there is every possibility and likelihood of twig blight being developed from the body form and vice versa. The branch and body forms are often, if not always, the results of the breaking of the bark, in other words are wound infections. This emphasizes the necessity of exercising great care in cultivating and handling the orchard, for every wound made, is an opportunity for the entrance of the minute bacteria which later on develop the canker.

PAST AND FUTURE.

THE NATIONAL NURSERYMAN, with this issue, ends its thirteenth volume. The mission it has strived to conduct, the invectives which have from time to time appeared in its columns, are placed before you for your conscientious approval. If it has succeeded in its ambition, its purpose has been fulfilled; and if its shortcomings counterbalance too heavily, it cheerfully asks to be apprised on some of the points—in order to improve in the future.

On the threshold of a New Year, new resolves and pledges are in order. That THE NATIONAL NURSERYMAN be included among your necessary equipment is its earnest desire—and to this end the publishers shall concentrate their best efforts to make this Journal an indispensable mouthpiece for the welfare of all interested in the nursery trade.

If you are not a subscriber, you should be. At the low price of \$1.00 a year, postpaid, you hardly can afford to be without it.

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NEWARK, NEW YORK.

"PURVEYORS TO THE TRADE."

ROSES. We are recognized Headquarters: Hybrid Perpetuals, Ramblers, Climbers, Mosses, etc., on own-roots and budded; the "J. & P. kind"—that live and grow and bring you other orders; better than the imported or field-rooted Southern stock.

DOROTHY PERKINS. Are you selling it? It is the best hardy Climbing Rose introduced since Crimson Rambler; was awarded Medals at the Pan-American and Louisiana-Purchase Expositions. We sold over *One Hundred Thousand* plants last season.

BABY RAMBLER. Two years, dormant, budded plants. We are also testing other New Roses including Etoile de France, Gruss an Teplitz, Frau Karl Druschki, Rubin, etc.

CLEMATIS. Jackmanii, Henryii, Madame Ed. Andre, and other large-flowering kinds in good supply; also Paniculata. Largest growers in the world.

HYDRANGEA PANICULATA GRANDIFLORA. We were the first Nurserymen in this country to grow the tree-form, of which we offer a large stock, as well as of the bush-form, in the different sizes. We propagate 100,000 annually.

PRIVET AND BARBERRY. A good lot of stocky, well-grown plants.

FLOWERING SHRUBS AND VINES. In large assortment.

HERBACEOUS PLANTS. A splendid collection of the best and most popular Perennials.

CONIFERS. A good assortment of hardy, rapid-growing species.

ORNAMENTAL and SHADE TREES. Smooth and well-grown.

Spring 1906 Price List now ready; get our prices before buying; we sell at Wholesale Only.

Jackson & Perkins Co., Newark, New York.

The Geneva Nursery

Established in 1846

HEADQUARTERS FOR

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

SUPERB COLLECTION OF

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.

PAEONIAS—Large assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

FULL ASSORTMENT IN

Apples, Pears, Plums, Cherries and Quinces, CURRANTS, GOOSEBERRIES, RASPBERRIES.

We give special attention to dealers' complete lists.

Spring trade list on application.

W. & T. SMITH CO.,
GENEVA, NEW YORK.

When writing to Advertisers mention The National Nurseryman.

The Increasing Demand

For Biota Aurea Nana, (Berckmans Golden Arbor Vitae,) Was Greater than Last Season's Supply.

This year we grow Ten Acres of This Popular Conifer.

Select items wanted from this list and write us for prices.

FIRST-CLASS STOCK.

AMOR RIVER PRIVET (The Best Evergreen Hedge)	Palms: KENTIAS	CHERRIES
CITRUS TRIFOLIATA (The Best Defensive Hedge)	LATANIAS	PLUMS
AZALEAS (Own Roots, Home Grown)	PHOENIX	PEACHES
CAMELLIAS (Home Grown)	ALTHEAS	PEARS
GARDENIAS	EXOCHORDAS	GRAPES
MAGNOLIAS	HYDRANGEAS	ORANGES
CEDRUS DEODARA	LONICERAS	LEMONS
RETINOSPORAS	LILACS	LIMES
LIBOCEDRUS DECURRENS	WALNUTS	POMELOS
JUNIPERS	PECANS (Seedlings and grafted)	(All Citrus Fruits on Citrus Trifoliata)
	SHADE TREES	

WRITE FOR TRADE LIST

P. J. BERCKMANS CO. (Inc.)

FRUITLAND NURSERIES, AUGUSTA, GA.

Established 1856.

Over 450 Acres in Nursery.

When writing to Advertisers mention The National Nurseryman.

The Mount Pleasant Press

Wishes to all the Nurserymen of the United States

A Prosperous New Year!

THE signs of the times point to Prosperity for nurserymen—that is, to those nurserymen who have placed themselves in a position to *deserve* Prosperity. There is a class of men, of whom a few have crept in among the growers of plants, trees and shrubs, who expect to have Prosperity forced upon them with a club! Let them not be deceived; His Royal Nibs, the Prince of Prosperity, no longer travels with a brass band, nor does he break down the nurseryman's office-door to sit with him, and fatten up his bank account! Not much! Prince Prosperity awaits invitation as well as deserving, nowadays, and, if he is wanted, he must be prepared for, urged to come, and heartily welcomed by performance rather than by promise. He can't be gold-bricked; he has one eye out for the cheap man, for the "just as good" imitator, the poor packer, the short-counter, the skin-game fellow. He passes silently by such business men.



But he also misses many honest nurserymen who are hollow-chested, and who don't put on the front that invites Prosperity by seeming prosperous, backing it up by the true air of Prosperity that comes from doing things just a little better than the other fellow. These are the Prosperity-missers who are to be pitied and helped; the other fellows are not worth helping.



Now we are first assistants, almost prime ministers, to the Prince of Prosperity who comes to nurserymen, for we give public evidence that he has arrived! We are prosperous ourselves (being not ashamed of it,

either), and we love to aid Prosperity in "meeting up" with nurserymen. Among our list of valued and long-standing customers are most of the prosperous nurserymen of eastern America, and we serve them for Prosperity and with Prosperity and in Prosperity!



There is one kind of nurserymen we don't want to help: the man who expects to have a fine catalogue "when he can afford it," *as a luxury*. We do not want to print for any one who does not plan to have his catalogue pay him; we do not make "luxury" catalogues, or put on fool frills, or willingly permit a dollar's waste on work we do. We prefer to work, and *do* work, for those who cannot afford *not* to have a good catalogue, with which to invite the good trade of the good people who are ready to help in making the self-respecting nurseryman prosperous.



In 1906 we can care for some more of the Prosperity family. We are glad to write honest letters about catalogues to those who make honest inquiries and want our honest and best work. Try us.



J. Horace McFarland Company
Mount Pleasant Press
Harrisburg, Penna.

P. S.—It is sometimes worth while to keep in good company. The standard of printing at the Mount Pleasant Press has been greatly advanced in the past four years by our work with magazines admitted to be the most beautiful in the world. We printed "Country Life in America" for the first three years of its life, which made its reputation. We designed and made "The Country Calendar" until it was merged with "Country Life," just this month. Now we have undertaken to make "Suburban Life," of Boston, (which comes to us unsolicited), just as beautiful as a magazine can be. All these magazines have helped the nurserymen, for they have made a market for fine plants, trees, vines and shrubs. But this good work for the out-door magazines is reflected fully on the catalogues we make, and they are admitted to be the best in America. We ought to know how to make them, for we have been endeavoring to excel for twenty-seven years!

ESTABLISHED 1875

Mount Arbor Nurseries

E. S. WELCH, Proprietor

130 Center St., Shenandoah, Iowa.

One of the Largest, Best Equipped and most up-to-date Nursery Plants in the United States.

LARGE SUPPLY FOR SPRING 1906

APPLE and CRAB

Over 100 varieties, all grades.

PLUM AMERICANA on NATIVE ROOTS

Largest stock in United States.

PLUM EUROPEAN and JAPANESE

Smooth well grown trees.

CHERRY TWO YEAR

All of the leading sour and sweet varieties in prime condition.

ROSES and ORNAMENTALS

The leading popular kinds.

FOREST TREE SEEDLINGS

Catalpa, Locust, Maple, Elm, Ash, etc.

APPLE SEEDLINGS, LARGE SURPLUS

Grown on new land, free from disease.

APPLE GRAFTS

Any style made to order. Put up from best material and by competent workmen.

Shipments made from storage at any time.

Pleased to price your wants.

Special inducements on car lots

Ask for **Winter Wholesale List**, now ready.

P. OUWERKERK

1123 SUMMIT AVENUE, JERSEY CITY, N. J.

Rhododendrons, Clematis, H. P. Roses, Hardy Azaleas, Paeonias, Magnolias, Box Trees, Fancy Conifers, Hydrangeas and Shrubs, our specialties at our HOLLAND NURSERIES. Some of the goods on hand here during the packing season.

Forest Tree Seedlings

We offer for Spring delivery a large stock of Forest Tree Seedlings, all nursery grown, well rooted and well graded.

BLACK LOCUST 8-12, 12-18, 18-24 and 24-36 inch grades.

HONEY LOCUST 8-10 inch grades.

HARDY CATALPA 8-12, 12-18, 18-24 and 24-36 inch grades.

RUSS MULBERRY 8-12, 12-18, 18-24 inch, 2-3 and 3-4 foot grades.

ASH (white) 8-12, 12-18, 18-24 and 24-36 inch grades.

BOX ELDER 8-10 inch grades.

WHITE ELM 8-12, 12-18 and 18-24 inch grades.

Also Butternut and Persimmon seedlings, large shade trees and flowering shrubs. Prices will be right; we make them ourselves.

GERMAN NURSERIES,

CARL SONDEREGGER, Prop.,

Beatrice, Nebr.

If You Want the Finest

European and Japan Plums

in Dansville, both 1 and 2 yrs., also 1 yr. Cherry and Keiffer Pear, write

JAMES M. KENNEDY, Dansville, N. Y.

When writing to Advertisers mention The National Nurseryman.

Bridgeport Nurseries

ALBERTSON & HOBBS

BRIDGEPORT, INDIANA

The largest and most complete in the state and one of the largest and best equipped in the country.

FOR SPRING OF 1906

PLUMS (large stock, all grades) European, Japan, Americana, CHERRIES, PEARS, Std. and Dwf. (all grades), APPLE, PEACH, QUINCE, GRAPE, CURRANTS, SMALL FRUITS, SHADE TREES, ORNAMENTAL TREES, SHRUBS, VINES, ROSES, etc., etc. APPLE SEEDLINGS, FOREST SEEDLINGS, IMPORTED CHERRY, PEAR, PLUM SEEDLINGS.

GRAFTS put up to order only—

NO JOB LOTS TO OFFER

Our SPADES the cheapest and best in the market

TRADE LIST READY FEB. 1st.

Our cellars are WELL FILLED and SHIPMENTS can be made ANY DAY. Order early and have goods set aside for you.

WANT LISTS PRICED PROMPTLY

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

SHRUBS, JAPANESE IRIS, PAEONIES

In Thousands or Car Lots

The United States Nursery Co.

RICH, MISS.

Lenault, Huet & Colombe

. . NURSERYMEN . .

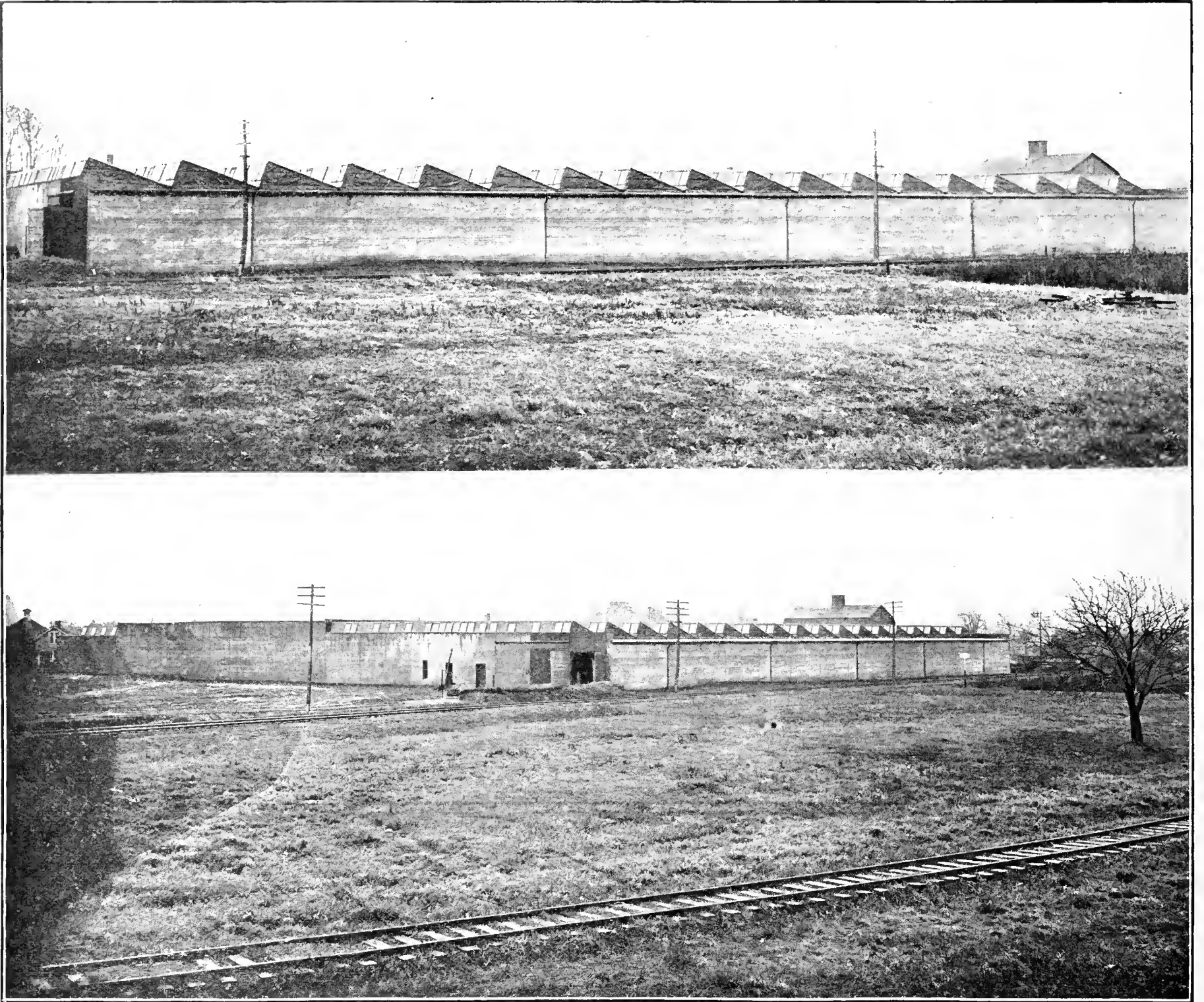
USSY, CALVADOS, FRANCE.

GROWERS AND EXPORTERS OF FRENCH NURSERY STOCK

A great assortment of fruit trees such as Mahaleb, Mazzard, Myrobolan, Pear, Apple, Quince, Manetti, Rose, Multiflora, Forest Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

When writing to Advertisers mention The National Nurseryman.



Exterior views of the mammoth concrete packing house of Chase Brothers Company, Rochester, N. Y.
The open door near corner shows the private enclosed siding of the New York Central Railway.

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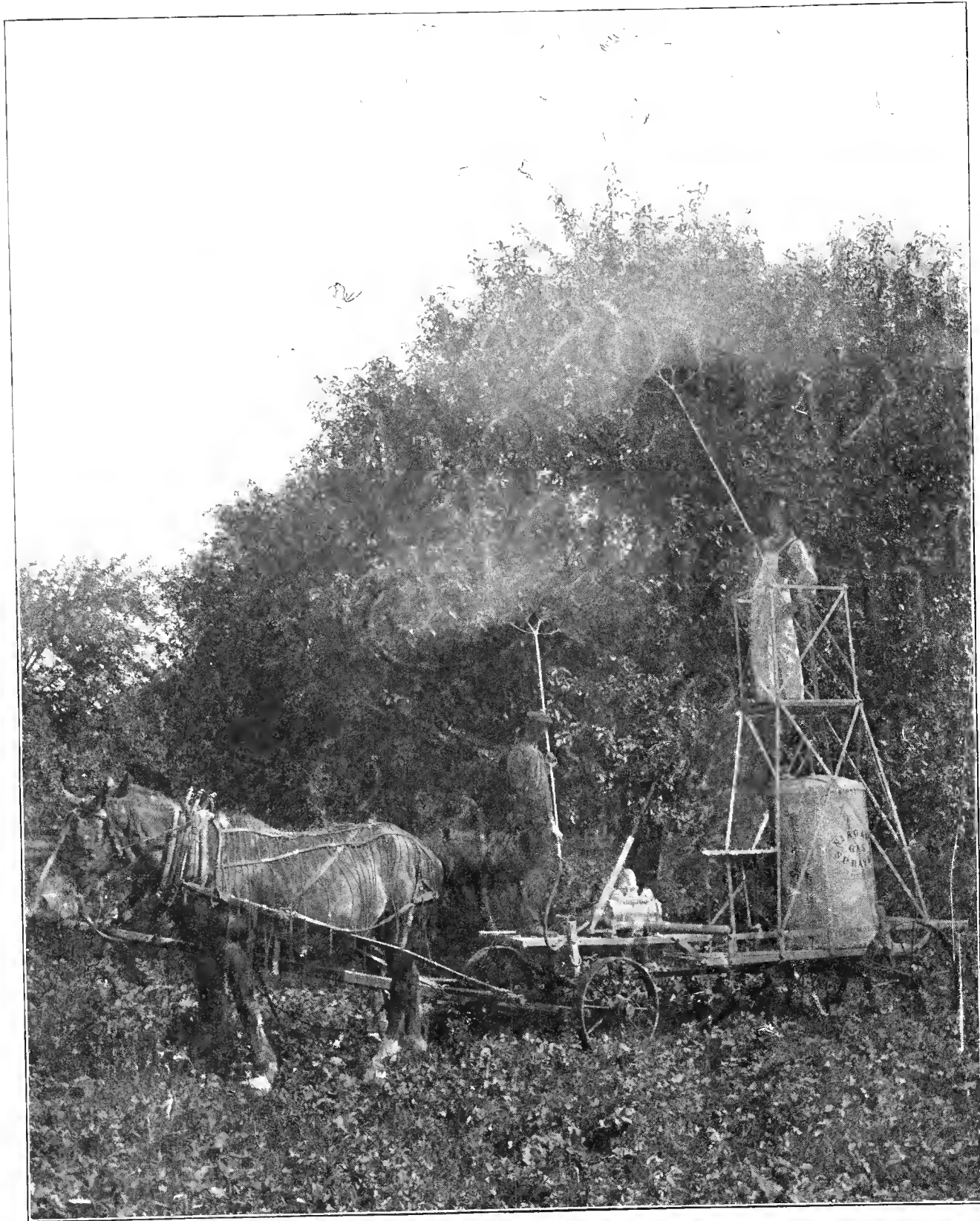
March, 1905

The Niagara Gas Sprayer

will save you money, time and labor.

The Niagara Nozzle Protector

will save your temper as well as keep your nozzles free from dirt.



The trees in this orchard are about 35 feet high.

A postal with your name and address will bring our Catalogue.

THE NIAGARA SPRAYER CO.

39-41 Perry Street,

BUFFALO, . . . N. Y.

IF THE NIAGARA GAS SPRAYER

Is not Superior,

why do some of the

LARGEST GROWERS

Discard Other Power?

Burt, Niagara County, N. Y.,
July 18th, 1904.

The Niagara Gas Sprayer Co.,

39-41 Perry St., Buffalo, N. Y.:

Gentlemen—in March I ordered one of your spraying outfits of 150-gallon capacity. I have also a steam sprayer and a gear pump outfit. Since we received your sprayer, we have used the other two as "helpers" when rushed. We have had no trouble with it, and it is perfectly satisfactory. We can do the work better and faster with less labor and less material. The cost of power (for gas) is more than made up in the saving in labor and material, and besides we do the work and spray the tops of the high trees. I shall try to dispose of the steam and gear sprayers and buy another of you another year. Every fruit-grower should have one.

Respectfully, BURT VAN HORN.

Address for Catalogue, etc.,

THE NIAGARA SPRAYER CO.,
39-41 Perry St., Buffalo, N. Y.

IT EXCEEDS ITS GUARANTEE

ONONDAGA FRUIT FARM.

GRANT G. HITCHINGS, Proprietor.

P. O. Address, Syracuse, R. F. D. No. 5,
Onondaga County, N. Y.,

July 18, 1904.

Niagara Sprayer Co.,

39-41 Perry Street, Buffalo, N. Y.:

Dear Sir—Your letter at hand. After giving your Niagara Gas Sprayer a careful trial I find it exceeds its recommendations. The hired help like to spray. Now this means more effective work. The power is always ready for business. No delay. It is light to draw. This we appreciate on our hill-sides. The cost is somewhat more than other power, but this is much more than offset by its many other superior points. It's the coming power.

Yours truly,

GRANT G. HITCHINGS

Have you
OBSERVED

any Difference
in the QUALITY of

COLORED PLATES

?

OURS ARE THE BEST.



This is one of the famous

“Rochester” Colored Plates

made for the use of NURSERYMEN AND FLORISTS.

Our imprint ROCHESTER LITHO. CO.
ROCHESTER, N.Y. on Colored Work is evidence of SUPERIOR QUALITY.

ROCHESTER LITHOGRAPHING COMPANY,

176 North Water Street, ROCHESTER, N. Y.

(Over.)

We
Carry
in
Stock



Nurserymen's
Supplies
of Every
Description.

Nurserymen's Illustrated Descriptive Catalogue

for the accommodation of those who need them quickly.
Our latest edition contains 80 pages with many half tone
cuts. Neatly bound and strictly up to date.

Sample Copy by mail 15 cents.

Price per 100 copies \$8.00 with
your name and address on cover.

We also print to order Special Catalogues which will *sell*
nursery stock. We have hundreds of cuts of Fruits and
Flowers with which to illustrate without cost to customers.

We manufacture PLATES and PLATE BOOKS.

COLORED PLATES   

MADE
BY
ANY
PROCESS



LITHOGRAPH
PHOTOGRAPH
PHOTO PROCESS
HAND PAINTED

Reproductions from Nature a Specialty.

Send for our Catalogue of Supplies, Outfit Cases, Order Books,
Circulars, Cards, Etc.

Rochester Lithographing Company,

176 North Water Street.

Rochester, New York.

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April, 1905

THE MONROE NURSERY

MONROE, MICH.

I. E. ILGENFRITZ' SONS CO.

Offer Fine

Apple

Std. Pear

Cherry

Plum

Peach

Currants

Elm

Etc., Etc.

Write for List and Prices

OUR NEW CATALOGUE

Quoting Prices for Fruit Tree Stocks :

300	Varieties of Conifers, 1 to 4 years old,
1200	" " Ornamental Trees and Shrubs, 1 to 3 years old,
1600	" " New and Old Ornamental Trees and Shrubs, in all sizes,
250	" " Climbing Plants,
400	" " Conifers, 1 to 4 feet high,
400	" " Perennials,
800	" " New and Old Roses,

has been distributed and will be sent free on application. Write direct to us.

WE HAVE NO AGENTS

Trancon Bros.' and D. Dauvesse's Nurseries.

BARBIER & CO.

16 Route d'Olivet, ORLÉANS, France

We offer for Fall 1904 and Spring 1905

A FULL ASSORTMENT OF

Roses and Ornamental Shrubs

ALL FIELD GROWN.

Special inducements to those buying in large quantities. We make the growing of Roses a specialty and can take care of any size order of the leading sorts of H. P.; Tea; Hybrid Tea; Prairies; Mosses, Etc., Privet; Philadelphus; Althaea and Spirea. Send for Wholesale List.

The United States Nursery Co.

RICH, COAHOMA COUNTY, MISS.

55th Year

Baltimore Nurseries.

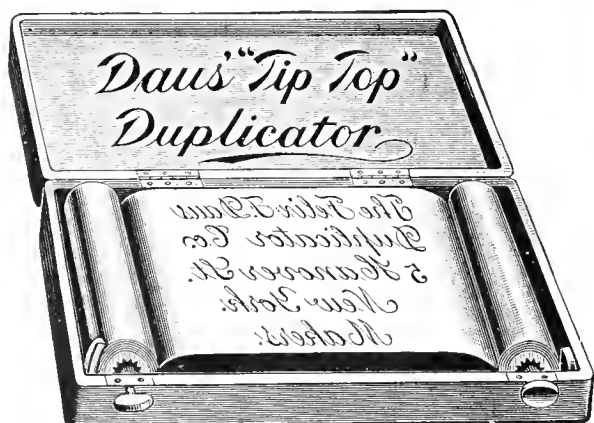
Baltimore, Md.

Franklin Davis Nursery Company.

We offer for spring, Apple in carload lots, Peach, Pear, Cherry, and a General Assortment of Ornamental Shrubs, Asparagus, Grapes, California Privet, etc., etc.

PEACH SEED—Several hundred bushels selected Smocks.

Send us your WANT LIST; all stock inspected and fumigated.



What Is Daus' Tip-Top?

TO PROVE

that Daus' "Tip-Top" Duplicator is the best, simplest, and cheapest device for making

100 copies from Pen-written and 50 copies from Type-written original

we are willing to send a complete "Duplicator" without deposit on TEN DAYS trial if you mention The National Nurseryman.

No mechanism to get out of order, no washing, no press, no printer's ink. The product of 23 year's experience in Duplicators. Price for complete apparatus, cap size (prints 8 1/4 in. by 13 in.), \$7.50, subject to the trade discount of 33 1/3 per cent.—\$5.00 NET.

FELIX A. M. DAUS DUPLICATOR CO., Daus Building, 111 John Street, New York.

ELMIRE SEBIRE

Fils Aine, at USSY, Calvados. France

AUGUST RÖLKER & SONS, 31 BARCLAY ST., NEW YORK, P. O. Box 752

Importers of Nursery Stocks, Fruit and Tree Seeds.

GROWER AND SHIPPER OF **NURSERY STOCK**
Ornamentals, Trees and Shrubs, Evergreens, Conifers. Forest Trees for Spring or Fall shipment. Send for estimates to our sole American Agents.

RAFFIA FIBRE in prime Nurserymen's quality.

When writing to Advertisers mention The National Nurseryman.

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May, 1905

Vincennes Nurseries

W. C. REED, VINCENNES, IND.

APPLE—Fine lot of Ben Davis and general assortment. 40 varieties all grades.

PEACH—Splendid assortment. Long on Elberta. Grades run largely medium, 3 to 4 and 2 to 3 feet

PLUM—Japan, New Hybrid and Wild Goose.

CHERRY—1 and 2 years. Fine stock.

SHADE TREES—Ash, Elm, Box Elder and Balm Gilead. Also nice line of Pear, Roses, Shrubs, etc.

HURST'S POTATO SPRAYER FREE



Sprays everything. Trees, potatoes, truck, orchards and small patches equally well. Rows, 4 at a time, 20 acres per day. Even 2-acre growers say, "Pays itself first season." First order (where no agent) Wholesale price and agency. Ten days' free trial, or will take extra yield one acre our pay. Write to-day for one free in each locality.

H. L. HURST MFG. CO.
Dept. 4, Canton, Ohio.

"All Kinds" Sprayers, Bbls., etc., at lowest wholesale.

Pry Yourself Loose From Business

and spend a fortnight of solid rest drinking the health-giving waters at

**French Lick
West Baden Springs**

Nature's prescription for kidney, liver and stomach troubles. Fine hotels - delightful companionships - and best of all, *real* rest. Situated on the

MONON ROUTE

Write for illustrated booklet giving full particulars, hotel rates, etc., mailed free.

Chas. H. Rockwell Traffic Manager
Frank J. Reed Gen. Pass. Agent
198 Custom House Place
Chicago



DETROIT AND BUFFALO STEAMBOAT CO.

Steamers Eastern States and Western States
The **DIRECT** and **POPULAR**
ROUTE to **POINTS WEST**
DAILY SERVICE, MAY 10th
Improved Express Service (14 hours) Between
BUFFALO and DETROIT

Lv. Buffalo Daily, 5.30 P. M. Ar. Detroit, 7.30 A. M.
Connecting with Early Morning Trains for Points North and West and D. & C. Line for Mackinac Island.

Lv. Detroit Daily, 5.00 P. M. Ar. Buffalo, 9.00 A. M.
Connecting with all Morning Trains for Points East.

Rate between Buffalo and Detroit \$3.50 one way, \$6.50 round trip. Berths \$1.00, \$1.50; Staterooms \$2.50 each direction.

Send 2c Stamp for Illustrated Pamphlet.
Through Tickets sold to all Points via Lake and Rail.

RAIL TICKETS HONORED ON STEAMERS
All Classes of Tickets sold reading via Grand Trunk, Michigan Central and Wabash Railways, between Buffalo and Detroit, will be accepted for transportation on D. & B. Strs. in either direction between Buffalo and Detroit. A. A. SCHIANTZ, G.S. & P.T.M., Detroit, Mich.

When writing to Advertisers mention The National Nurseryman.

EVERGREENS

For Parks, Landscape Gardening, Cemeteries, Home Grounds and Farms. Special attention called to the highly ornamental

COLORADO BLUE SPRUCE

of which we are large growers. Also Balsam Fir, Norway Spruce, White Pine, Arbor Vitæ, etc. They have the roots, size and shape to reset and grow. **Hoyt's Evergreens are Sure Growers.** Send for list. Car lots a specialty.

SCOTCH GROVE NURSERY

Hoyt Bros. Props.

Scotch Grove, Ia.

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

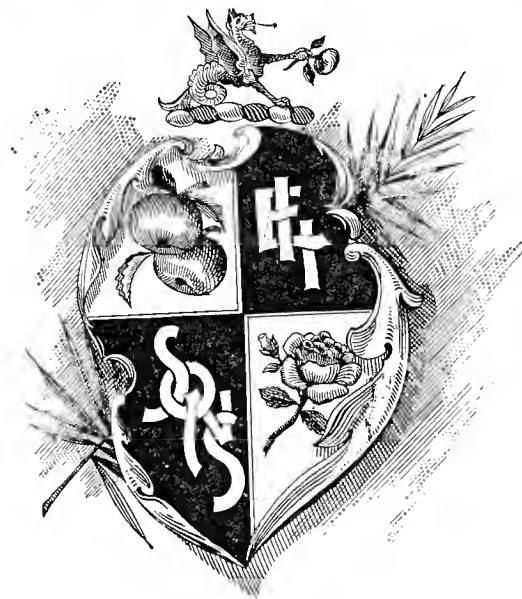
SHRUBS - JAPANESE IRIS - PAEONIES

In Thousands or Car Lots

The United States Nursery Co.

RICH, MISS.

THE MONROE NURSERY



Offer for the Coming Season
a General Line of

Choice Nursery Stock

Correspondence Solicited

I. E. ILGENFRITZ' SONS CO.
MONROE, MICH.

When writing to Advertisers mention The National Nurseryman.

Another of the Famous
"Rochester" Colored Plates



LA FRANCE

ROCHESTER LITHO CO
ROCHESTER N.Y.

Made by

Rochester Lithographing Company,

176 North Water Street,

Rochester, N. Y.

Hardly Possible

To get on well in these times without using the best Plates, Plate Books, Circulars, Catalogues and Nurserymen's Supplies. Right here is where we can be of service to you. Our facilities for executing high class printing, together with our skill and experience are invaluable to nurserymen.

A Few Expressions

From Our Customers

PLATE BOOKS.

The Plate Book of Fruits, Flowers and Ornamentals that you just furnished me is the best I ever saw. It is indeed a work of Art, and equal to Nature's own handiwork.

HAND PAINTED PLATES.

The Hand Painted Plates of my new apple just received. It is marvelous how true to Nature these Plates are made.

LITHOGRAPHS.

The Colored Plate of Baby Rambler Rose to hand. You may insert this Plate in each of the Plate Books you are making for us. Also send five thousand Baby Rambler Circulars printed with our firm name.

Just from the Press

Another edition of our DESCRIPTIVE CATALOGUE, handsomely illustrated. By printing frequent editions of this Book we keep it strictly up to date, thus including all new creations and eliminating obsolete varieties. Any quantity can be shipped immediately, upon receipt of order.

The Latest and Best

Our New CONDENSED PLATE BOOK, containing 186 Standard Varieties of Fruits and Ornamentals beautifully shown on 76 pages, substantially bound at end. The most Practical Plate Book ever made. Price \$1.50.

SEND FOR OUR COMPLETE CATALOGUE
OF NURSERYMEN'S SUPPLIES

Rochester Lithographing Company

176 North Water Street.

Rochester, New York.



June, 1905

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W. C. REED, VINCENNES, IND.

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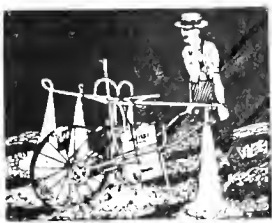
PEACH—Splendid assortment. Long on Elberta. Grades run largely medium, 3 to 4 and 2 to 3 feet

PLUM—Japan, New Hybrid and Wild Goose.

CHERRY—1 and 2 years. Fine stock.

SHADE TREES—Ash, Elm, Box Elder and Balm Gilead. Also nice line of Pear, Roses, Shrubs, etc.

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Dept. 4, Canton, Ohio.

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Pry Yourself Loose From Business

and spend a fortnight of solid rest drinking the health-giving waters at
French Lick West Baden Springs

Nature's prescription for kidney, liver and stomach troubles. Fine hotels—delightful companionships—and best of all, *real* rest. Situated on the

MONON ROUTE

Write for illustrated booklet giving full particulars, hotel rates, etc., mailed free.

Chas. H. Rockwell Traffic Manager
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Connecting with all Morning Trains for Points East.

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\$6.50 round trip. Berths \$1.00, \$1.50; Staterooms \$2.50 each direction.

Send 2c Stamp for Illustrated Pamphlet.
Through Tickets sold to all Points via Lake and Rail.

RAIL TICKETS HONORED ON STEAMERS

All Classes of Tickets sold reading via Grand Trunk, Michigan Central and Wabash Railways, between Buffalo and Detroit, will be accepted for transportation on D. & B. Ste. in either direction between Buffalo and Detroit. A. A. SCHANTZ, G. S. & P. T. M., Detroit, Mich.

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For Parks, Landscape Gardening, Cemeteries, Home Grounds and Farms. Special attention called to the highly ornamental

COLORADO BLUE SPRUCE

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SCOTCH GROVE NURSERY

Hoyt Bros. Props.

Scotch Grove, Ia.

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

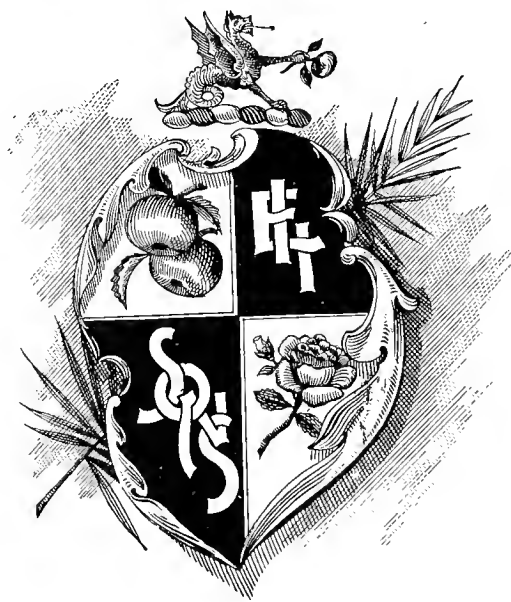
SHRUBS - JAPANESE IRIS - PAEONIES

In Thousands or Car Lots

The United States Nursery Co.

RICH, MISS.

THE MONROE NURSERY



Offer for the Coming Season
a General Line of

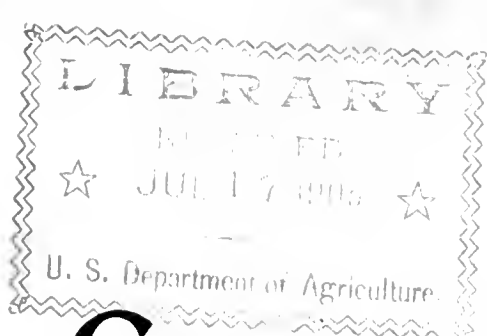
Choice Nursery Stock

Correspondence Solicited

I. E. ILGENFRITZ' SONS CO.

MONROE, MICH.

When writing to Advertisers mention The National Nurseryman.



Convention Number



uly, 1905

AMERICANA PLUM SEEDLINGS

**Minnesota
Grown**

THE coming stock for all manner of plum propagating. We have used them here for forty years in growing the improved native varieties, and experiment has demonstrated that they also work good unions with the Domesticas, Japan and Hybrid sorts. They are the *acme* of hardiness as is evidenced by the fact that they are indigenous to the northernmost parts of this state and way up into Manitoba. They also have the requisite vigor of bark and fibre to heal quickly and adjust inequalities of size between root and scion. As a quick producer of heavy fibrous roots for nursery trees, the native seedling leads all other stocks. If you have never used them you should try a few thousand this season.

We offer to the trade, for Autumn Shipment, the largest block of these seedlings we have ever grown. They are making a splendid growth, and will grade strong. We offer two sizes: 3 to 5 and 5 to 8 mm. Samples will be sent on request. Let us have your order as early as possible. Prices on application.

THE JEWELL NURSERY CO.

WHOLESALE
DEPT.

**LAKE CITY
MINNESOTA**

**Richelieu & Ontario Navigation Co's
Steamers**

**TORONTO
AND
KINGSTON**

DAILY SERVICE DURING JULY
AND AUGUST TO

**KINGSTON, 1000 ISLANDS, MONTREAL
QUEBEC AND SAGUENAY RIVER**

LEAVE TORONTO 3 P. M. DAILY
LEAVE CHARLOTTE 11 P. M. DAILY

For descriptive circulars, berths, tickets, and information, apply to

W. F. CLONEY,
Niagara Falls, N. Y.

H. FOSTER CHAFFEE,
Toronto, Ont.

G. T. AMSDEN, Rochester, N. Y.

When writing to Advertisers mention The National Nurseryman.

EVERGREENS

For Parks, Landscape Gardening, Cemeteries, Home Grounds and Farms. Special attention called to the highly ornamental

COLORADO BLUE SPRUCE

of which we are large growers. Also Balsam Fir, Norway Spruce, White Pine, Arbor Vitæ, etc. They have the roots, size and shape to reset and grow. **Hoyt's Evergreens are Sure Growers.** Send for list. Car lots a specialty.

SCOTCH GROVE NURSERY

Hoyt Bros. Props.

Scotch Grove, Ia.

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

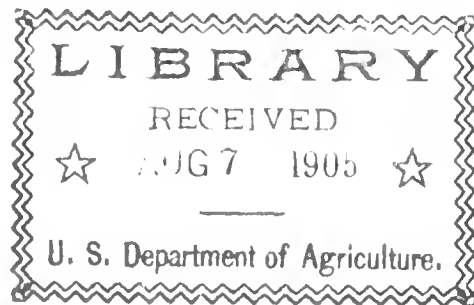
SHRUBS - JAPANESE IRIS - PAEONIES

In Thousands or Car Lots

The United States Nursery Co.

RICH, MISS.

When writing to Advertisers mention The National Nurseryman.



August, 1905

AMERICANA PLUM SEEDLINGS

MINNESOTA
—GROWN—



One of our blocks of native plum seedlings. Photograph taken June 24th, 1905.

THE coming stock for all manner of plum propagating. We have used them here for forty years in growing the improved native varieties, and experiment has demonstrated that they also work good unions with the Domesticas, Japan and Hybrid sorts. They are the *acme* of hardiness as is evidenced by the fact that they are indigenous to the northernmost parts of this state and way up into Manitoba. They also have the requisite vigor of bark and fibre to heal quickly and adjust inequalities of size between root and scion. As a quick producer of heavy fibrous roots for nursery trees, the native seedling leads all other stocks. If you have never used them you should try a few thousand this season.

We offer to the trade, for Autumn Shipment, the largest block of these seedlings we have ever grown. They are making a splendid growth, and will grade strong. We offer two sizes: 3 to 5 and 5 to 8 mm. Samples will be sent on request. Let us have your order as early as possible. Prices on application.

The Jewell Nursery Co.

**Wholesale
Dept.**

Lake City
—Minnesota—

**Richelieu & Ontario Navigation Co's
Steamers**

TORONTO
AND
KINGSTON

DAILY SERVICE DURING JULY
AND AUGUST TO

**KINGSTON, 1000 ISLANDS, MONTREAL
QUEBEC AND SAGUENAY RIVER**

LEAVE TORONTO 3 P. M. DAILY
LEAVE CHARLOTTE 11 P. M. DAILY

For descriptive circulars, berths, tickets, and information, apply to

W. F. CLONEY,
Niagara Falls, N. Y.

H. FOSTER CHAFFEE,
Toronto, Ont.

G. T. AMSDEN, Rochester, N. Y.

When writing to Advertisers mention The National Nurseryman.

FOR SALE

Orange Quince Buds

For sale off of young orchard, true to name. Enquire of

JOHN TWOMEY, - Geneva, New York

CURRENT CUTTINGS

We offer for Fall delivery a fine lot of cuttings, 6 to 8 inches long, of following varieties: Pomona, Wilder, Red Cross, White Grape, White Dutch, London Market, Fay's, Cherry, Versailles, North Star, Victoria and Red Dutch. Also

200,000 GOOSEBERRY CUTTINGS

Houghton, Downing, Pearl, Smith's and Red Jacket. 25,000 Orange Quince Cuttings, 500,000 Grape Cuttings, 150,000 Carolina Poplar Cuttings, 100,000 California Privet Cuttings, with our usual large supply of

EVERYTHING IN SMALL FRUITS

Splendid stock of Rhubarb from seed and divided roots, also large roots for forcing. Asparagus, Horse Radish, Holt's Sage, etc., etc. Please let us quote you our prices.

W. N. SCARFF - - New Carlisle, O.

NURSERYMEN

A first-class manager of retail nursery desires to better his position. Has ability, originality, long experience and

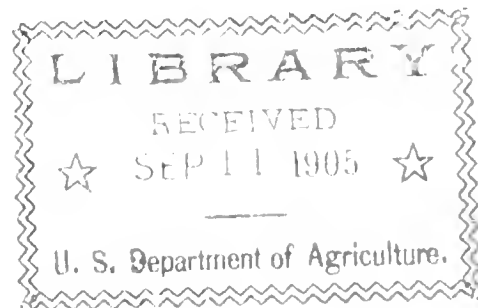
A RECORD TO RECOMMEND HIM

Present salary \$1,800 per year. Any large concern wanting a man to carry the responsibility of sales-making and willing to pay for same, with a chance of an interest as the business increases, will find it worth their while to address

SALES-MAKER

% National Nurseryman

When writing to Advertisers mention The National Nurseryman.



September, 1905

Established 1780.

Andre LeRoy Nurseries

Brault & Son, Directors,

Angers, France

ARE NOW BOOKING ORDERS FOR

FALL, 1905, AND SPRING, 1906

For nursery stocks, of their own growing, grading and packing. For quotations apply to

ANDRE L. CAUSSE, Sole Agent,
105-107 Hudson St., New York City.



Steamers Eastern States and Western States
The DIRECT and POPULAR
ROUTE to POINTS WEST
DAILY SERVICE, MAY 10th
Improved Express Service (14 hours) Between
BUFFALO and DETROIT

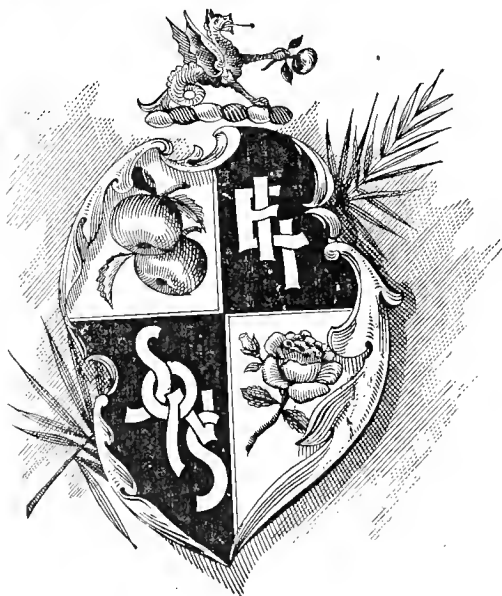
Lv. Buffalo Daily, 5.30 P. M. Ar. Detroit, 7.30 A. M.
Connecting with Early Morning Trains for Points North
and West and D. & C. Line for Mackinac Island.
Lv. Detroit Daily, 5.00 P. M. Ar. Buffalo, 9.00 A. M.
Connecting with all Morning Trains for Points East.
Rate between Buffalo and Detroit \$3.50 one way.
\$6.50 round trip. Berths \$1.00, \$1.50; Staterooms
\$2.50 each direction.

Send 2c Stamp for Illustrated Pamphlet.
Through Tickets sold to all Points via Lake and Rail.

RAIL TICKETS HONORED ON STEAMERS

All Classes of Tickets sold reading via Grand Trunk,
Michigan Central and Wabash Railways, between Buf-
falo and Detroit, will be accepted for transportation on
D. & B. Strs. in either direction between Buffalo and
Detroit. A. A. SCHANTZ, G.S. & P.T.M., Detroit, Mich.

THE MONROE NURSERY



Offer for the Coming Season
a General Line of

Choice Nursery Stock

Correspondence Solicited

I. E. ILGENFRITZ' SONS CO.
MONROE, MICH.

When writing to Advertisers mention the National Nurseryman.

A BARGAIN IN EUROPEAN AND JAPAN **PLUM TREES**
Fine assortment and best grading.
An exceptionally fine block of 25,000 2-year olds, smooth and hand-
some; also about 5,000 1-year old. **Low Prices for early orders.**
Address: **H. C. CLARK, - Dansville, N. Y.**

A BARGAIN IN STANDARD PEARS.
Extra size, 6 to 7 ft; 1
inch and up 5 to 6 ft; 3-4 and up. Mostly Bartlett.
Can also furnish a few of the leading varieties.
It will be worth while to get our prices before buying else-
where. Address

Pioneer Nurseries Company,
Salt Lake City, Utah.



Good Fruit Versus Bad

is the subject at issue and no
wide awake farmer will doubt
which is more desirable.

The Spramotor

absolutely insures you 80% of an
increase in the crop from your
orchards. The Spramotor pays for itself many
times over which is better than costing you
nothing. Don't confuse it with Spray Pumps.
Write for Booklet (A). Full particulars free.

SPRAMOTOR CO.

Buffalo, N.Y. London, Canada.
AGENTS WANTED.

The Oakland Nurseries

OFFER FOR FALL AND SPRING SHIPMENT

The finest lot of two and three year old Apple trees grown
A good assortment of Peach and Plum
California Privet—all sizes
Plenty of shrubbery, including Berberry Thunbergii at a
special price in large lots

G. R. BURR, Prop.
MANCHESTER, CONN.

Carolina Poplars Silver Leaf Maples

BEST STOCK THAT CAN BE GROWN.
WRITE FOR SIZES AND PRICES.

MILLS DALE NURSERY,
GREENVILLE, S. C.

THE ELLISVILLE NURSERY

Offers for fall 1905 and spring 1906 two and three year Apple
trees of leading varieties at very reasonable prices. Special low
prices on car lots.

A. WILMAS, Proprietor
ELLISVILLE, St. Louis County,

MISSOURI



October, 1905



Established 1780.

Andre LeRoy Nurseries

Brault & Son, Directors,

Angers, France

ARE NOW BOOKING ORDERS FOR

FALL, 1905, AND SPRING, 1906

For nursery stocks, of their own growing, grading and packing. For quotations apply to

ANDRE L. CAUSSE, Sole Agent,
105-107 Hudson St., New York City.

PEACH SEED.

I really think these Texas Seedling Seed produce more trees to the bushel than any. It is satisfaction to be sure of a stand. I can send samples

PEACH SEEDLINGS

Just right for grafting. A great stock of fine trees for the trade.

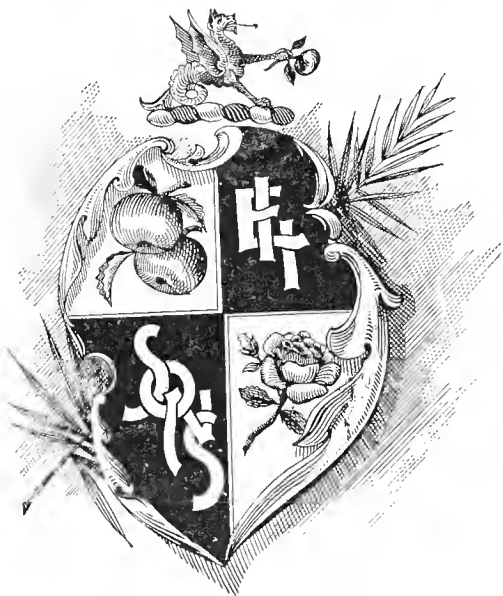
TUBEROSES

The new single Mexican.
A money maker.

Write for Descriptive Catalog.

F. T. RAMSEY,
THE AUSTIN NURSERY,
AUSTIN, TEXAS.

THE MONROE NURSERY



*Offer for the Coming Season
a General Line of*

Choice Nursery Stock

Correspondence Solicited

I. E. ILGENFRITZ' SONS CO.
MONROE, MICH.

When writing to Advertisers mention the National Nurseryman.

For Sale! One year Japan Plums, Burbank Red June and Abundance, fine stock. Also European Plums, $\frac{5}{8}$ and $\frac{1}{2}$ inch. Good assortment. Write for prices.

H. C. CLARK, Dansville, N. Y.

A BARGAIN IN STANDARD PEARS. Extra size, 6 to 7 ft; 1 inch and up 5 to 6 ft; 3-4 and up. Mostly Bartlett.

Can also furnish a few of the leading varieties.

It will be worth while to get our prices before buying elsewhere. Address

Pioneer Nurseries Company,
Salt Lake City, Utah



Good Fruit Versus Bad

is the subject at issue and no wide awake farmer will doubt which is more desirable.

The Spramotor

absolutely insures you 80% of an increase in the crop from your orchards. The Spramotor pays for itself many times over which is better than costing you nothing. Don't confuse it with Spray Pumps. Write for Booklet (A). Full particulars free.

SPRAMOTOR CO.

Buffalo, N.Y. London, Canada.
AGENTS WANTED.

The Oakland Nurseries

OFFER FOR FALL AND SPRING SHIPMENT

The finest lot of two and three year old Apple trees grown
A good assortment of Peach and Plum
California Privet—all sizes
Plenty of shrubbery, including Berberry Thunbergii at a special price in large lots

G. R. BURR, Prop.
MANCHESTER, CONN.

Carolina Poplars Silver Leaf Maples

BEST STOCK THAT CAN BE GROWN.
WRITE FOR SIZES AND PRICES.

MILLS DALE NURSERY,
GREENVILLE, S. C.

WANTED To sell a few shares of the capital stock of Giles County Nursery Co. Paid 14 % dividend last year. Reason for selling party has gone into another business, and desires to sell cheap. Address

R. O. LAMAR, Manager,
Lynnville, Tenn.

When writing to Advertisers mention the National Nurseryman



Established 1780.

Andre LeRoy Nurseries

Brault & Son, Directors,

Angers, France

ARE NOW BOOKING ORDERS FOR

FALL, 1905, AND SPRING, 1906

For nursery stocks, of their own growing, grading and packing. For quotations apply to

ANDRE L. CAUSSE, Sole Agent,

105-107 Hudson St., New York City.

The H. S. Taylor Nursery Co.

ROCHESTER, N. Y.

We offer a full and complete line of fruit and ornamental stock for Spring of 1905. Send list of wants for quotations. Special facilities for dealers billing out on our grounds.

All sizes of Ash Leaf
Maple, Silver Maple,
Weirs C. L. Maple,
Am. Elm, Carolina
Poplars.



An immense stock of California Privet, all sizes, Altheas, Calycanthus, Hydrangea P. G., Hydrangea Trees, Tree Lilacs, Honey-suckle, Spiraea, Deutzias, etc., etc.

Nurseries at Brighton, N. Y. Address all Correspondence, Rochester, N. Y.

Peach Seed!

GENUINE MOUNTAIN NATURALS

CROP 1905.

We have just received a few hundred bushels of nice clean stock.

WRITE FOR PRICES.

J. Van Lindley Nursery Company
POMONA, N. C.

W. T. HOOD & CO.

Old Dominion Nurseries, Richmond, Va.

Offer for Fall 1905 and Spring 1906

SPECIALTIES:

PEACH—Grown from North Carolina and Tennessee Natural Pits—large assortment—carload lots.

CALIFORNIA PRIVET—Extra fine—one and two year.

NATURAL PEACH PITS—Crop 1905, and general line of Shrubbery and Ornamental Stock.

NOTE: Our stock is now being grown on new land in Hanover Co., about 20 miles from Richmond. No nursery stock has heretofore been planted on or near this place; it is also isolated from old orchards and we can promise our patrons an exceptionally fine lot of stock.

Correspondence solicited.

When writing to Advertisers mention The National Nurseryman.

NURSEY MEN

READ THIS OFFER! IT WILL PAY YOU!

THE APPLE SPECIALIST

AN UP-TO-DATE PAPER

It is devoted exclusively to apples, and is the connecting link between the NURSEY MEN and ORCHARDIST.

No paper ever had such a phenomenal growth. It has leaped into prominence at the rate of 1,000 per month until now it circulates extensively all over the United States and Canada. Its influence is sought after every where, and before a great many meetings it is used as text matter.

Regular Subscription 50 cents per year, but to all Nurserymen, we will send three years for 50 cents if The National Nurserymen is mentioned.

Special advertising rates for the next six months of \$1.00 per inch for nursery stock. Send your order at once.

THE APPLE SPECIALIST
QUINCY, ILLINOIS,

BRANCHED ROOT

APPLE SEEDLINGS

We have a very fine lot—about 500,000—of $\frac{1}{4}$ in. branched root Apple Seedlings. They have been grown on new land and will be graded strong. They are clean—have good color—and are strictly select in every way. : : :

WE WILL MAKE VERY CLOSE PRICES

F. W. WATSON & CO.

TOPEKA, KANSAS

When writing to Advertisers mention The National Nurseryman.

PAINESVILLE NURSERIES

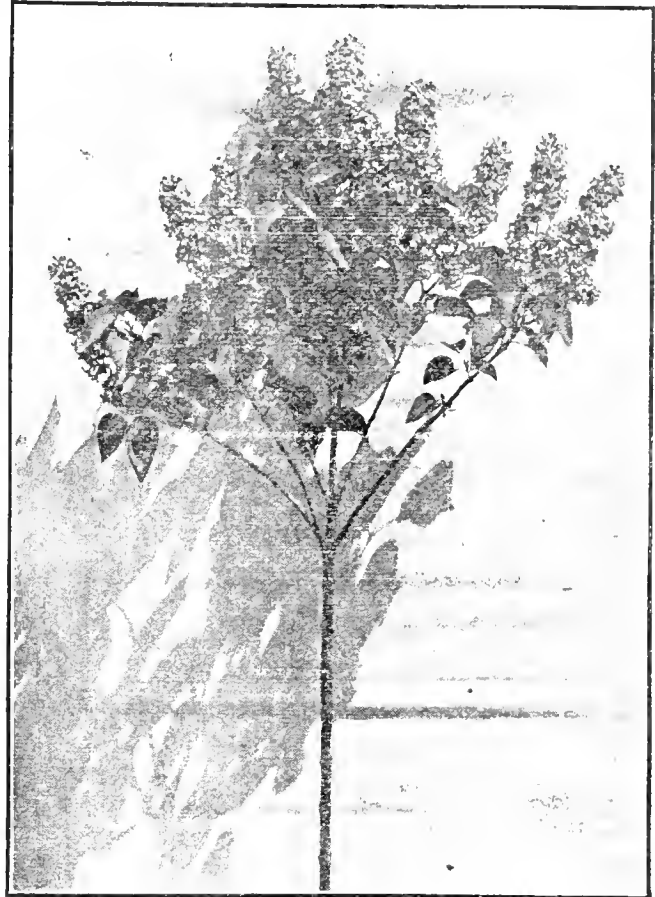
OFFER ONE OF THE LARGEST
AND MOST COMPLETE ASSORT-
MENTS OF

NURSERY AND FLORISTS' STOCK

IN THE UNITED STATES, IN-
CLUDING Fruit and Nut Trees, De-
ciduous and Evergreen Trees and
Shrubs, Roses, Hardy Vines and
Plants, Small Fruits and Grape Vines,
Tender Plants, Bulbs and Seeds.

Field Grown Hardy Roses

Largest blocks in America. Lead-
ing varieties of Hybrid Perpetual, Moss,
Climbers, Ramblers, Rugosa Hybrids,
etc., superior to imported stock for
outdoor planting or forcing.



Lilac Souvenir de Ludwig Spaeth.

A FEW OF THE ITEMS WE HAVE IN LARGE SUPPLY
SPECIAL PRICES ON EARLY ORDERS. Ash, Birch, Willows, Poplars, Prunus Pissardi,
Barberries, Deutzias, Syringas, Lilacs, Tree and Bush Hydrangea, Tree and Climbing
Honeysuckle, Pym's Japonica, Spirea Anthony Waterer, Clematis large flowered and
Paniculata, Ampelopsis, Veitchii and Tree Roses.

In addition to usual seasonable stock our greenhouses contain extra fine lots of
Palms, Araucaries, Ferns, Rubbers and other decorative stock. ¶ Direct importations in
large lots of **Hyacinths, Tulips, Lilies, Crocus, Narcissus** and other bulbs for Fall planting.

Pleased to price your list of wants or to show you our stock. Special inducements on car lots for
Fall delivery or stored for Spring shipments. If you have not received our fiftieth anniversary
descriptive catalog, send for it. Catalogs and Price Lists free.

51 Years

1200 Acres

44 Greenhouses

THE STORRS & HARRISON CO.

PAINESVILLE, OHIO

TREES

Fruit and Ornamental.
Shrubs
Evergreens
Roses
Hardy Plants

All the Best and Hardest Varieties.
Largest Collections in America.
Gold Medal—Paris—Pan-American—St. Louis. 102 prizes N.Y. State Fair, 1904. Illustrated Descriptive Catalogue (144 pages) **FREE** on request.

ELLWANGER & BARRY,
Nurserymen—Horticulturists.
MOUNT HOPE NURSERIES,
Rochester, N. Y.
Established 1840. Mention this publication.

THE Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.
ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.
RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.
PÆONIAS Large Assortment, Named Varieties.
DAHLIAS—New Cactus. Large Flowering, Ponpon.

Full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co., GENEVA,
NEW YORK.

When writing to Advertisers mention The National Nurseryman

JACKSON & PERKINS CO.

Newark, N. Y.

A FEW J. & P. SPECIALTIES.

ROSES: Hybrid Perpetuals, Ramblers, Climbers, Mosses, Etc.

On-own-roots and budded. The "J & P kind" that live, grow and bring other orders. Better than imported or field-rooted southern stock.

ARE YOU SELLING THE NEW CLIMBING ROSE "DOROTHY PERKINS?" It is the best climbing rose introduced since the Crimson Rambler. Was awarded medals at the Pan-American and Louisiana-purchase expositions. Given a full-page illustration (without any pre-arrangement on our part) in the March number of "Country Life." We sold over 100,000 plants last season.

Many other new roses now being tested and grown, including **BABY RAMBLER**, Etoile de France, Gruss an Teplitz, Frau Karl Druschki, Rubin, Etc.

CLEMATIS: WE ARE THE LARGEST GROWERS IN THE WORLD OF THIS POPULAR PLANT.

Leading large flowering varieties and a large stock of Clematis Paniculata.

AMPELOPSIS VEITCHII, 2 YEARS AND 3 YEARS 150,000 plants for this season.

HERBACEOUS PLANTS, Splendid collection of the best and most popular perennials.

HONEYSUCKLES, CLIMBING AND UPRIGHT. Large stock.

HYDRANGEA PANICULATA GRANDIFLORA, Standards (Tree-form) and Bush-form plants. We grow 100,000 annually.

PAEONIAS, LARGE ROOTS. FORTY BEST KINDS. Selected from over 150 varieties that we formerly grew.

FLOWERING SHRUBS, Large general assortment.

ORNAMENTAL and SHADE TREES, Smooth and well-grown.

CONIFERS, Good assortment of hardy, rapid-growing species.

JACKSON & PERKINS CO., Newark, N. Y.

The Increasing Demand

For Biota Aurea Nana, (Berckmans Golden Arbor Vitae.)
Was Greater Than Last Season's Supply.

THIS YEAR WE GROW TEN ACRES OF THIS POPULAR CONIFER.

Select items wanted from this list and write us for prices.

FIRST-CLASS STOCK.

AMOR RIVER PRIVET (The Best Evergreen Hedge)
CITRUS TRIFOLIATA (The Best Defensive Hedge)

AZALEAS (Own Roots, (Home Grown)	ALTHEAS	CHERRIES
CAMELLIAS (Home Grown)	EXOCHORDAS	PLUMS
GARDENIAS	HYDRANGEAS	PEACHES
MAGNOLIAS	LONICERAS	PEARS
CEDRUS DEODARA	LILACS	GRAPES
RETINOSPORAS	WALNUTS	ORANGES
LIBOCEDRUS DECURRENS	PECANS Seedlings	LEMONS
JUNIPERS	and Grafted.	LIMES
Palms: KENTIAS	SHADE TREES	POMELOS
LATANIAS		(All Citrus
PHOENIX		Fruits on Citrus Trifoliata)

WRITE FOR TRADE LIST

P. J. BERCKMANS COMPANY (Inc.)

FRUITLAND NURSERIES, AUGUSTA, GA.

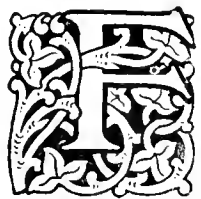
Established 1856.

Over 450 Acres in Nursery.

When writing to Advertisers mention The National Nurseryman.



Plates made
directly from the apple
by our own process



FOR six or eight months, in presenting our case as to horticultural printing on this page, we have constantly advised nurserymen that

WE DO NOT MAKE COLORED PLATES

That this announcement is to save us constant bother, in having to decline orders for a half-dozen "hand-painted" plates of some specific variety, and not because of inability, we show above, in connection with the plain truth, that

WE CAN MAKE COLORED PLATES

The "King" apple picture above shows that we can give a most life-like presentation of a fruit. To do it, however, we have to make, by our superior methods, a complete set of printing engravings of each subject *from nature*, and this preparation is the same for a million as for a dozen—BUT it is too expensive for the dozen, or the hundred! So that again, by reason of the awful things that pass current as "colored plates," and because nursery-

men are not yet ready to have and pay for the truly accurate and beautiful color work we make, we must say

WE DO NOT MAKE COLORED PLATES

except as some nurseryman is keen enough to see that he can use a specialty *in quantity*, in which case we give him superb results and a very moderate price.

As to catalogue covers in color—surely we have shown what we have done, on this page in the past months, not to mention the "stunning" things we have to show in later months!

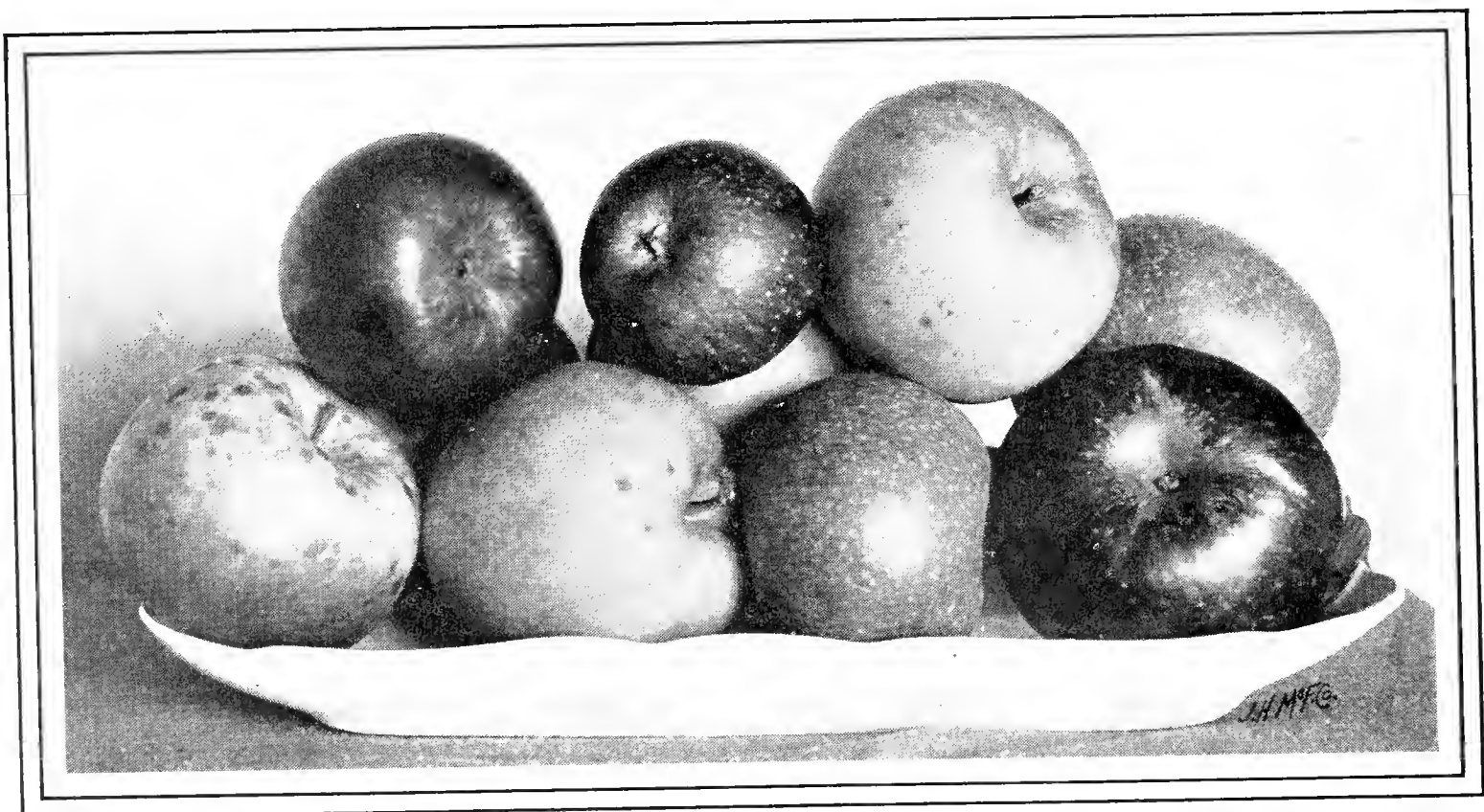
And as to catalogues themselves: let us patiently sing the same old song, a true song, too—that we make catalogues to SELL trees, plants, vines, fruits, and to reach people of wealth and cultivation. We work best for those who aim at five-dollar rather than five-cent customers, and our oldest friends (21 years, 18 years, 16, 14, and right down to date) are our best friends.

Write us what you think about catalogues. Tell us (a) how many pages, (b) about the size, (c) how many catalogues. Then we can intelligently send you specimens of our work, and show what we can do for you. Do not lose sight of our great collection of engravings, at your catalogue service, and of our greater collection of photographs, also at your service.

J. HORACE McFARLAND COMPANY

Mount Pleasant Press

HARRISBURG, PENNSYLVANIA



Nursery For Sale

IN PENNSYLVANIA.

Long established, well known in the trade, at very reasonable terms.
Apply to A. G. care National Nurseryman Publishing Co., Rochester, N.Y.

PEACH SEED.

I really think these Texas Seedling Seed produce more trees to the bushel than any. It is satisfaction to be sure of a stand. I can send samples

PEACH SEEDLINGS Just right for grafting. A great stock of fine trees for the trade

TUBEROSES The new single Mexican.
A money maker.

Write for Descriptive Catalog.

F. T. RAMSEY,
THE AUSTIN NURSERY,
AUSTIN, TEXAS.

SURPLUS

Apples, Japan Plums and Keiffer Pears in extra size, first-class, $\frac{5}{8}$ to $\frac{3}{4}$ and $\frac{1}{2}$ to $\frac{5}{8}$ grades.

Conovers, Barr's Mammoth and Palmetto Asparagus, 2 year.

Oriental Plants, Catalpa Speciosa, American Elms, Norway and Silver Maples, Mossy Cup, Pin, English, Red and Scarlet Oaks, Prunus Pissardi, California Privet, Berberis Thunbergii and Spiria Van Houtii.

American Arborvitae and Norway Spruce.

Rakestraw & Pyle
Kennett Square, Pa.

Field-Grown, Own Root **ROSES** Over 100 best varieties--tender and hardy



Our roses are not grown by the "old woman method," — long cuttings rooted in the field—such as is grown in the south.

RIGHT STOCK put up right, at right prices;

This is CLIO the best pink H. P. grown—as you know or can find out.
CRIMSON RAMBLERS. Cheaper than you can grow them.
CALIFORNIA ROSE CO., Inc. - Los Angeles, Cal.
When writing to Advertisers mention the National Nurseryman

We have Peaches and Birch,
And Currants so fine;
We would mention our Plum,
But the word it don't rhyme.

Crabs and Apples three quarters.
Our Pears are five-eighths.
By mail send your list,
And you will get our low rates.

C. W. STUART & CO.,
Newark, N. Y.
P. S. Also Downing Gooseberry 2 yr. No. 2.

VERMONT APPLE SEED
produces the healthiest seedlings, most perfect stands. A few bushels unsold.

APPLE SEEDLINGS from Vermont seed

ROOT GRAFTS, all leading sorts

GRAPE VINES, New York grown

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NATIVE PLUM SEEDLINGS

JAPAN & FRENCH PEAR SEEDLINGS

QUINCE STOCKS

CAROLINA POPLAR

APPLE SCIONS, extra fine, leading sorts

STARK TREE DIGGER—THE BEST

A Complete Line of General Nursery Stock

STARK BRO'S NURSERIES & ORCHARDS CO Louisiana, Mo.

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ESTABLISHED 1868
F. W. Meneray Crescent Nursery Co.
 (INCORPORATED)
 COUNCIL BLUFFS, IOWA.

Native Ameracana Plum Seedlings

The only good Grafting and Budding Stock for Ameracana Plums. Cherry, Plum, Peach and Apple Trees, Grape and small fruits of all kinds.

Large growers of Pæonies, 290 named Varieties

Hardy Shrubs and Ornamentals. Car lots a specialty.

SPECIAL PRICES

in carload lots for early orders on

Apple

2 and 3 years
 Leading
 Varieties

Cherry

2 years old
 Leading
 Varieties

Peach

2 years old
 Leading
 Varieties

We also have a complete line of nursery stock including Pear, Plum, Grape, Current, Gooseberry, Small Fruits, Hardy Shrubs, Roses, Ornamental Trees, Etc, Etc.

J. K. HENBY & SON,

Greenfield, - - - Indiana.

Norway and Sugar Maples 10 to 12 ft. 1½ inch and up. Keiffer Pear Trees 1st class. Ward Blackberry root cuttings. Peach Trees at bargain prices as we are closing out the business.

D. BAIRD & SON, Baird, N. J.

TEAS WEEPING MULBERRIES

Fine Specimens. Texas Umbrella Chinas,
 Select Southwestern Trees, Fruits, etc.

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(Formerly Kerr's Nursery)

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NATURAL PEACH
 FRENCH CRAB
 QUINCE, PEAR
 CHERRY AND PLUM

**FRUIT
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**FRUIT
 STOCKS**

APPLE, WESTERN AND
 PARADISE, MAZZARD
 AND MAHALEB CHERRY
 PEAR, QUINCE AND PLUM

The experienced grower knows the importance of ordering his requirements early. If you have not done so, order NOW. You may avert a disappointment. Yes, perhaps actual loss. Send for our Price List.

THOMAS MEEHAN & SONS, INC.
 NURSERY ST., DRESHERTON, PA.

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Southern Nursery Company
WINCHESTER, - TENN.

FALL 1905 AND SPRING 1906

100,000 First-Class Peach, 1½ and up. Can furnish one-half Elberta if wanted; Salway, Carman, Crawford's Early, Crawford's Late, St. John, Alexander, Greensboro, Stump, Chairs Choice, Mt. Rose, Globe, Triumph.

20,000 Roses (own roots.) Heavy on Gen. Jack, Paul Neyron, Prince de Rohan, Marechal Neil, Solfaterre.

California Privet, 1 and 2 years old. Shade and Ornamental Trees.

Write for estimate on your list of wants.

Southern Nursery Company
WINCHESTER, - TENN.

A BARGAIN IN STANDARD PEARS. Extra size, 6 to 7 ft; 1 inch and up 5 to 6 ft; 3-4 and up. Mostly Bartlett.

Can also furnish a few of the leading varieties.

It will be worth while to get our prices before buying elsewhere. Address

Pioneer Nurseries Company,
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BLACKBERRY
ROOT CUTTING PLANTS

One year plants for late fall and spring shipment. Transplants for early fall. Send lists of wants for lowest prices.

T. S. HUBBARD, CO. Fredonia, N. Y.

**We Offer for Fall Large Stock
 June Bud Peach and Plum**

We also offer fine lot of Kansas grown 2-year Apple of assorted varieties, about 50,000 at very close prices F. O. B.

50,000 3/16 and up Kansas grown Apple Seedlings. A nice lot of 1-year Peach and Cherry. Also Southern Mountain natural Peach Seed for shipment from our Nurseries.

We offer Nurserymen and the trade inducements. Prices on Strawberry Plants June Buds and 1 year Peach. Write us.

Chattanooga Nurseries

CHATTANOOGA, TENN.

When writing to Advertisers mention The National Nurseryman.



Tree Protectors

75c. per 100. \$5 per 1000

Send for samples and testimonials. Do not wait until rabbits and mice ruin your trees. **Write Today.**

HART PIONEER NURSERIES

Box 27, FORT SCOTT, KANS.

DO YOU WANT

Apple Seedlings

OR

Japanese Pear Seedlings?

We do not grow **MORE** than all others.
We care **WELL** for what we do grow.
Write us for prices, and if you want to see fine seedling ask for samples.

200,000 2 yr. Apples

As fine a block as there is growing in the West.

ALL LEADING SORTS

NORTH TOPEKA NURSERIES

A. L. BROOKE & CO., Proprietors

North Topeka and Grantville, Kansas

We have to Offer the Following Stock Well Graded and up to Our Usual High Standard:

Apple Seedlings. Apple Grafts. Forest Tree Seedlings, including Black and Honey Larsh, Mulberry, Ash, Catalpa, Box Elder and Russian Olive Shade Trees.

Carolina Poplar (fine lot), Box Elder, Maple. Ash, Russian Olive, also Evergreens, Strawberry Plants, Raspberry, Rhubarb and Asparagus. Get our prices.

J. A. GAGE, Beatrice, Neb.



The New

Remington Billing Typewriter

has two surpassing merits:

It's a complete billing machine.

It's a Remington.

Easy to operate, durable, and economical in service.

Remington Typewriter Company
327 Broadway, New York

Plants for Storage

We can furnish for late Fall orders or for Winter storage a splendid assortment of fine plants, well graded, true to name. Our surplus comprises the following:

Raspberries Earhart Ever-bearing, Cumberland, Eureka, Gregg, Kansas, Ohio, Palmer, Columbian, King (new), Shaffer Col., Haymaker, Cardinal, Brilliant, (new), Munger (new), Cuthbert, Golden Queen, Hansell, Loudon, Miller, Marlborough, Turner.

Blackberries Crystal White, Early Harvest, Erie, Eldorado, Kittatinny-Lawton, Maxwell, Minnewaski, Early King, Rathbun, Mer-sereau, Ancient Briton, Ohmer, Stone's Hardy, Kennoyer (new), Blowers (new), Ward (new), Snyder, Taylor, Wilson's Early, Wilson Jr., Agawam, Wachusett, Iceberg, Dewberry, Premo Lucretia, Austin's.

Cuttings North Star, Victoria, Cherry, Fay's, Pomona, Red Dutch, Wilder, Red Cross, London Market, Versailles, Houghton Downing Red Jacket Carolina Poplar California Privet, Orange Quince, Houghton Layers.

Garden Roots Asparagus; Rhubarb, divided roots; Rhubarb, grown from seed, 1 year; Horseradish Sets; Holt's Sage.

A good stock of Currants, Gooseberries, Wineberries, Juneberries, Strawberry-Raspberry, Buffaloberries, Loganberries, etc., etc. Price List on application.

W. N. SCARFF - - New Carlisle, O.



Nursery Stock ^{OF ALL} KINDS At Wholesale

Send us a list of your wants for prices. We will save you money.

AGENTS WANTED EVERYWHERE.

HART PIONEER NURSERIES.

Box 27

FORT SCOTT, KANS.

1,000,000 PEACH TREES

Smooth, clean, well grown two year old trees budded on seedlings grown from natural seed collected in this vicinity, which is entirely free from "Yellow's" and all disease.

50,000,000 STRAWBERRY PLANTS

And all kinds nursery stock grown on virgin soil at small cost to be sold at closest prices. Send your want list for prices.

Dept. M.

CONTINENTAL PLANT CO., Kittrell, N. C.



Why Not Buy your Lumber for Boxing Sized, cut to Lengths You Use and all Ready to Nail Together?
It Costs but Little More than the Common Lumber you buy and you will Save Work, Waste and Money.

SPECIAL PRICES ON CAR-LOTS
MILLS WAUSAU, WIS. GOODWILLIE BROTHERS
407 New York Life Bldg., Chicago, Ill.

The Frazer Nursery

JOHN FRAZER, Prop.

HUNTSVILLE, ALABAMA.

OFFER FOR IMMEDIATE OR LATER SHIPMENT

CHERRY, 1 and 2 years. PEAR, 1 and 2 years. PLUM, (Japan) 1 year. PEACH, 1 year. MULBERRY, 1 year, large grades. PECAN SEEDLINGS and GRAFTED. PRIVET, 1 and 2 years. CRIMSON RAMBLER, BALD. BELLE, QUEEN OF PRAIRIE and MAD. PLANTIER ROSES, 1 year, own roots.

WRITE FOR PRICE LIST

HARDY Native American Rhododendrons and Azaleas are the best to use. There are a hundred thousand growing in the Highlands Nursery. Large clumps, 2½-6 feet high collected in the Pennsylvania Mountains, at a low rate per car load. Write for surplus list and full particulars, also, for unique illustrated catalog of Hardy Native Plants, filled with half-tone engravings. Address,

HARLAN P. KELSEY,

Proprietor of
 Highlands Nursery, N. C.

Beacon Building,
 BOSTON, MASS.

WANTED

A young man with experience and some capital would buy out a **RETAIL AGENCY NURSERY BUSINESS** on reasonable terms. All communications confidential. Address Confidential, care of NATIONAL NURSERYMAN.

Easterly Nursery Co.,

CLEVELAND, TENN.

Offer for Fall of 1905—

One Year Peach, One and Two Year Apples,
 One Year Cherry, Two Year Pecans.

WRITE FOR PRICES

When writing to Advertisers mention the National Nurseryman.

Choice Nursery Stock FOR SALE

15,000 Apple Trees, 5-8 to 3-4, for sale cheap.
 100,000 California Privet, from 1 to 3 ft.
 10,000 Hydrangea Paniculata, both bush and tree form.
 Also a large stock of Forest Trees, White, Austrian and Scotch Pine of all sizes. Address:

THE STEPHEN HOYT'S SONS CO.
 NEW CANAAN, CONN.

Vincennes Nurseries

W. C. REED, VINCENNES, IND.

APPLE—Fine lot of Ben Davis and general assortment. 40 varieties all grades.
PEACH—Splendid assortment. Long on Elberta. Grades run largely medium, 3 to 4 and 2 to 3 feet
PLUM—Japan, New Hybrid and Wild Goose.
CHERRY—1 and 2 years. Fine stock.
SHADE TREES—Ash, Elm, Box Elder and Balm Gilead.
 Also nice line of Pear, Roses, Shrubs, etc.

SNOW HILL NURSERIES

OFFER FOR FALL 1905 AND SPRING 1906

PEACH TREES—more than fifty leading varieties one year from bud, aggregating upward of a million fine trees.
KEIFFER ST. PEARS—two years fine stock.
CALIFORNIA PRIVET—one, two and three years finely branched large stock.
GRAPE VINES—30 acres, one and two years, fine roots and vine varieties in greatest quantities; Concord, Moores, Early and Niagara.

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Speer Grafting Machine

(Patented) Will Save Time and Money.
Work is Much More Perfect Than by Hand.



of speed. Send for circulars and price. Freight paid on orders sent in previous to November 1st.

VIENNA, ILL., July 1, 1905.
DEAR SIR: We want one of the Speer Grafting Machines. Don't remember if we told you we would take one when at the convention. We don't want it before Dec. 1st. Please let us know if we can depend upon getting it. W. E. GALLENER & SONS.

DES MOINES, IOWA.
D. B. SPEER: Dear Sir: In regard to the Grafting Machine, will state that we sold the one we had with the Nur-

It seemed to please all at Nurserymen's Convention in June. The La-Salle, Ill. Nursery people bought the sample. Several orders placed and many others said they were sure to order early. L. F. Dintleman, Belleville, Ill., at convention, said he would have one, as it was certainly a good thing, making such perfect unions regardless of

sery, but I was always pleased with its work and will do all in my power to help you sell some of them.

M. J. WRAGG, late of Waukegan, Ia.
FR. DODGE, Ia., Jan. 11, 1905.

D. B. SPEER: Dear Sir: If your new Grafting Machine is an improvement over your old one, it will be a good thing, as we worked the old one for five years, and our man would not do without it. Yours truly,
W. C. HAVILAND.

E. G. MENDENHALL
General Agent United States and Canada
Box 316 Kimmunity, Illinois

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Farms in Virginia, North and South Carolina, Georgia, Alabama, Mississippi, Kentucky and Tennessee.

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All conditions are favorable. There are fine Markets, Good Locations, Low Cost of Labor and Splendid Distributing Facilities.

Good Lands at Low Prices.

A HEALTHY CLIMATE, LONG GROWING SEASONS,
AND AN ALL-THE-YEAR WORKING SEASON.

The South is now making greater progress than any other Section. If you would learn about its developments, and the opportunities for good locations along the Southern Railway, write for copies of our publications, which will be sent free on request.

M. V. RICHARDS,
LAND AND INDUSTRIAL AGENT,

Southern Railway, - Washington, D. C.

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F. N. Stannard & Co.

Successors to BREWER & STANNARD

Proprietors

Ottawa Star Nurseries

OTTAWA, KANSAS

Have for sale a large and complete assortment of Nursery Stock, strong on

*Apple, Cherry, Pear
Plum, Peach, Apricots
Forest Tree Seed-
lings, Apple Scions.*

A good assortment of Grape Vines, Gooseberries and Currants. Also Ornamental Trees and Shrubs

Dreer's Fall Trade List

Offers the Most Complete Assortment of Hardy Perennials in the Country of Well-Known Standard Quality.

Japanese and German Iris
Paeonies and Hardy Phloxes
Asters, Campanulas, Delphiniums

All standard varieties in immense quantities, new and rare sorts in great assortment.

Also a full line of Seasonable
Decorative Plants

Azaleas, Camellias, Araucarias, Ferns,
Ficus, Palms, Pandanus, etc.

Shrubs for Forcing and Planting

Azalea Mollis and Pontica, Rhododendrons
Deutzias, Boxwood, Bay Trees, etc.

Bulbs, Hyacinths, Tulips,
Daffodils, etc.

All seasonable seeds.

Henry A. Dreer

714 Chestnut Street

Philadelphia, Pa.

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JAPANESE SPECIALTIES

ORDER NOW
FOR
FALL DELIVERY

Direct from our own Nurseries in Yokohama and
Tokio, Japan.

NURSERY STOCK,
ORNAMENTAL TREES AND
SHRUBS,
TREE AND HERBACEOUS
PAEONIES,
IRIS KÆMPFERII, the Latest
Varieties,
LILIES, ETC.

Write for Our Trade List.
SPECIAL PRICES FOR LARGE QUANTITIES
and Hand Colored Plates for Inspection
on Demand.

Suzuki & Iida

31 Barclay Street, NEW YORK
21-35 Nakamuramachi, YOKOHAMA

P. Sebire & Son, Nurserymen, Ussy, Calvados, France.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myroblan Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, etc. The largest stock in the country. Prices very low. Grading and packing the very best. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for United States and Canada.

C. C. ABEL & CO., 110-116 Broad St., New York

FOREST TREE SEEDS & SEEDLINGS

CATALPA, BLACK LOCUST, ASH, BIRCH, RED BUD, PER-SIMMON, ELMS, TULIP POPLAR, SWEET GUM, RUSSIAN MULBERRY, BUCKEYE, BLACK AND JAPAN WALNUTS, CALIFORNIA, PRIVET, WISTARIAS, VIRGINIA CREEPER, YUCA, AND VARIOUS SEEDS AND SEEDLINGS. FINE STOCK OF SEEDLINGS OF ABOVE. Send for Trade List.

Forest Nursery and Seed Company

R. F. D. 2., McMinnville, Tennessee

GRAPE

ALL OLD AND NEW VARIETIES
Immense Stock Warranted True.
QUALITY UNSURPASSED.
Catalogue and Price List Free.
Send list of wants for lowest prices
f. o. b. here.

An extra fine stock and full assort-
ment of varieties of CURRANTS and
GOOSEBERRIES; also BLACKBERRY
ROOT CUTTING PLANTS.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

Baltimore Nurseries

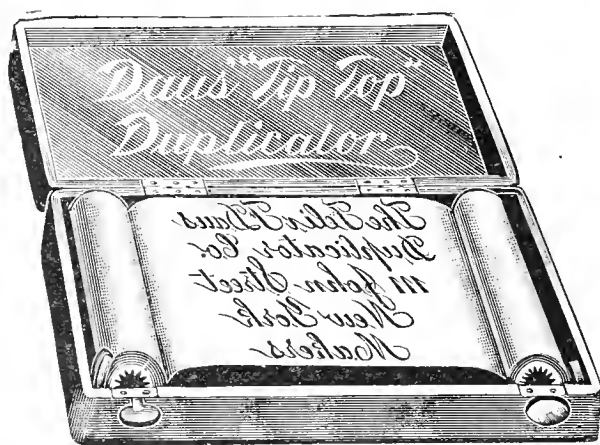
Franklin Davis Nursery Company,
Baltimore, Md.

WE OFFER FOR FALL 1905 A GENERAL LINE OF WELL-GROWN STOCK, SUCH AS
APPLE, PEACH, PEAR, PLUM, CHERRY, APRICOTS, &c.
ALSO A GOOD ASSORTMENT OF ORNAMENTAL TREES, SHRUBS, ROSES, &c.
A FINE LOT OF 1, 2 AND 3 YEAR OLD PRIVET, CUT BACK THIS SPRING, HEAVILY BRANCHED.

Several hundred bushels of Selected Peach Seed.

We pack dealers' orders.

Send us your list of wants, also your surplus list.



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TO PROVE

that Daus' "Tip-Top" Duplicator is the best,
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No mechanism to get out of order, no washing, no press, no printer's ink. The product of 23 year's experience in Duplicators. Price for complete apparatus, cap size (prints 8 1/2 in. by

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Fils Aine, at USSY, Calvados, France

GROWER AND SHIPPER OF **NURSERY STOCK**
Ornamentals, Trees and Shrubs, Evergreens, Conifers. Forest Trees for Spring
or Fall shipment. Send for estimates to our sole American Agents.

AUGUST RÖLKER & SONS, 31 BARCLAY ST., NEW YORK, P. O. Box 752

Importers of Nursery Stocks, Fruit and Tree Seeds. Also Spring Bulbs.

Price lists mailed on application

When writing to Advertisers mention The National Nurseryman.

WE GROW Apple Seedlings —AND— Apple Trees

WE make a specialty of these two things giving them our time and attention. Being grown on new ground, they have clean, healthy roots and are first class in every respect. Try us and see if our prices are not the lowest.

Shawnee Nursery Co.
Topeka, Kansas.

Establish Your Nursery

OR A BRANCH

Of it in the South. All Southern Nurserymen are prosperous, none of them have ever failed, because they do an immense volume of business and get good profits. Our most successful Nurserymen have come to us from other sections.

Southern land owners, fruit raisers, truck-growers and florists have accumulated hundreds of thousands of dollars. They've saved it. They took it out of the fertile soil of the South, and they are going to replant these savings year after year, for a still larger and more profitable harvest.

In ten years Virginia, the Carolinas, Georgia, Florida and Alabama, will be recognized as the greatest fruit and vegetable sections in America. The Seaboard Air Line illustrated monthly Magazine gives the reasons; you should know them and we will put your name on our complimentary mailing list upon request.

If you want a new location write us.

SEABOARD AIR LINE RAILWAY

J. W. White, G. I. A., PORTSMOUTH, VIRGINIA.

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VIBURNUM PLICATUM

Several thousand fine bushy plants, 2 to 3 feet, and 3 to 4 feet.

WEIGELA EVA RATHKE

The finest Weigela; its bright red flowers completely cover the plants when in bloom. Over 200,000 shrubs of the most popular varieties grown in Nursery Row; well shaped plants.

STANDARD FORSYTHIA SUSPENS

The best weeping plant, rivals the Weeping Mulberry. Makes a fine show in April when covered with its golden yellow flowers.

CATALPA BUNGEI

One and two year heads. Large blocks of Pin and Red Oaks grown on gravelly soil, which makes plenty of fibrous roots; best kind for transplanting. Fine Weeping and Shining Leaved Willows, Lombardy Poplars, Weir's Cut Leaved Maple, Prunus Pissardi and a general stock of ornamentals.

HOOPEs, BRO. & THOMAS

Maple Avenue Nurseries

Established 1853. 600 Acres

WEST CHESTER, PENNSYLVANIA

Philadelphia Office, 222-3-4-5 Stephen Girard Building

Knox Nurseries

We offer the following Thrifty Stock for Fall 1905:

CHERRY—2 yr., $\frac{3}{4}$ and up and $\frac{1}{2}$ - $\frac{5}{8}$.

" 1 yr., $\frac{5}{8}$ - $\frac{3}{4}$ and $\frac{1}{2}$ - $\frac{3}{8}$. Montmorency, E. Richmond and Dyehouse

PEACH—1 yr., $\frac{3}{4}$ and up, 5-7 ft. and $\frac{5}{8}$ - $\frac{3}{4}$, 4-6 ft. Elberta, Heath Cling, Crawford, Champion, Alexander, Smock, Salway, etc.

APPLE—3 yr., $\frac{3}{4}$ and up, and $\frac{5}{8}$ - $\frac{3}{4}$. Assorted.

" 3 yr., $\frac{1}{2}$ - $\frac{5}{8}$, 4-5 ft. Special lot cheap.

Catalpa Speciosa Seedlings. Apple Seedlings. Can interest you in prices. Keiffer St. 1 yr. and 2 yr. old. Ornamentals and other stock to offer. Let us have your list of wants.

H. M. Simpson & Sons,

VINCENNES, INDIANA.

Our New Catalogue

Quoting Prices for Fruit Tree Stocks:

300	Varieties of Conifers, 1 to 4 years old
1200	" " Ornamental Trees and Shrubs, 1 to 3 years old,
1600	" " New and Old Ornamental Trees and Shrubs, in all sizes.
250	" " Climbing Plants,
400	" " Conifers, 1 to 4 feet high,
400	" " Perennials,
800	" " New and Old Roses,

has been distributed and will be sent free on application.

WRITE DIRECT TO US.

WE HAVE NO AGENTS.

Trancon Bros.' and D. Dauvesse's Nurseries.

BARBIER & CO.

16 Route d'Olivet,

Orléans, France

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HEIKES'—HUNTSVILLE—TREES

HUNTSVILLE

Wholesale Nurseries

Huntsville, Ala.

We offer for the Fall of 1905 and the Spring of 1906, Pears, Plums, Cherries, Peaches, Roses, and Pecans in large quantities as usual.

SPECIALTIES.

KIEFFER PEARS—Which we grow in larger numbers than any other nursery in the United States. Our stock of two years old for the Fall of 1904 and Spring of 1905 counted up 270 000, and all were sold. Our stock for the coming season will exceed that of last, and our prices will be reasonable.

PEARS. ASSORTED, STANDARD—Our assortment comprises Koonce, Early Harvest, LeConte, Howell, Alamo, Bartlett, Smith's, Garber, Duchess d'Angoleme, Seckel, Flemish Beauty, Kieffer, Japan Golden Russet, Magnolia, Beurre d'Anjou and Lawrence.

CHERRIES—We are also the largest growers of cherries; but our stock of two years old for this season will be comparatively short.

PEACHES—We also excel in peaches, and of these we will have both in one year and June buds the largest stock we have ever grown.

PLUMS—A light stock of these for this year.

PECANS—We continue to make a specialty of grafted Pecans. These are grown at our branch nurseries at Biloxi, Miss., where the conditions are very favorable for their propagation.

ROSES—These are also grown at Biloxi, Miss., because of the favorable conditions found there for their propagation. Our stock is large, consisting principally of Hybrid Perpetuals, Mosses, Crimson Rambler and Marechal Niel.

SEE OUR PRICE LIST FOR PARTICULARS

WORLD'S FAIR We were awarded a Grand Prize, a Gold Medal, and a Silver Medal on our exhibits at the World's Fair, St. Louis

Address, W. F. HEIKES, Manager,
HUNTSVILLE, ALA.

FAIRMOUNT NURSERIES

Troy, Ohio

Call attention to an extra fine line of

Apple, Peach, Standard and Dwarf
Pear, Cherry, Plum, Currants, Quince
and Grapes. Ornamental Trees,
Shrubs and Vines. Also our usual
supply of Apple, Pear, Cherry and
Plum Seedling.

Write us for our Wholesale Fall list which is ready.

Let us figure with you on your want list.

The Geo. Peters Nursery Company

When writing to Advertisers mention the National Nurseryman.

Nebraska Grown APPLE TREES

—AND—

Apple Seedlings

AMERICAN PLUM TREES

—Black and—
Honey Locust and
Catalpa Seedlings

Large, Medium and Small
SHADE TREES

GRADES AND PRICES RIGHT

If interested write for prices and varieties

—ADDRESS—

YOUNGERS & CO.

Geneva, Neb.

WABASH R. R.

Offers unexcelled service
to the

WEST

FIVE DAILY VESTIBULED TRAINS

Buffalo to Chicago

FOUR DAILY VESTIBULED TRAINS

Buffalo to St. Louis

Kansas City and Omaha

Free Reclining Chair Cars.

Pullman Sleeping Cars.

Wabash Dining Cars.

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GARDING RATES, ETC.
CHEERFULLY GIVEN.

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JAMES GASS, N. Y. S. P. A.,

287 Main St., Buffalo, N. Y.

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287 Main St., Buffalo, N. Y.

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LEVAVASSEUR & SONS

Nurseries at USSY and ORLEANS, France.

Wholesale Growers of Fruit Tree Stocks, Ornamentals, Evergreen Seedlings, Etc. Best Grading, Quality and Packing. Largest shippers to this country
All leading nurserymen are our regular customers. Prices Right. Send your list of wants for prices before buying elsewhere to

HERMAN BERKHAN, SOLE AGENT,
60 Cortlandt St., NEW YORK.

Sole Agent for UNITED STATES AND CANADA.

NORTH CAROLINA NATURAL PEACH PITS

Now ready for delivery. These
seeds are in great demand and
you should ORDER AT ONCE.

ADDRESS

JOHN A. YOUNG, - - Greensboro, N. C.

Budded Pecan Trees

*Japan Persimmon, Japan Walnut,
and Muscadine Grape Vines*

Are leaders to the trade this year.

We also offer a general line of Nursery Stock, including Fruit and
Ornamental Trees, Shrubbery, Field-Grown Roses, Etc., Etc.
Prices always right.

THE GRIFFING BROS. CO.
JACKSONVILLE, Fla.

THE WILLADEAN NURSERIES

Offer for Fall 1905

A complete line of

Fruit, Shade and Ornamental Trees, Shrubs
Roses, Herbaceous Plants and all
kinds of Tree Seedlings.

We have the largest stock of Catalpa Speciosa (true Hardy
Catalpa) in America.

Special prices on Hydrangeas p. g. (bush or tree form), Lilacs,
Spireas, and other Shrubs, Roses, and Seedlings.
Tree seeds of all kinds in season.

WRITE FOR PRICES.

THE DONALDSON CO., Warsaw, Ky.

LEEDLE OFFERS YOU BIG VALUES IN ROSES

FLORAL COMPANY Extra strong plants on own roots from 2½
and 4 inch pots for spring delivery
Finest stock of H. P., H. T., T., R., Cl., etc. in the land
Springfield, Ohio

Wanted Grape Vines, Transplanted Raspberries,
Blackberries, Shrubs and Apple Grafts in
exchange for choice Apple trees.

E. F. Edmondson, - Perry, Iowa.

F. E. SCHIFFERLI

FREDONIA, N. Y.

Grape Vines and Currants

I offer for Fall of 1905 and Spring of 1906 an immense stock and
complete assortment. A particularly fine stock of Extra Heavy two
and three year vines for

Nurserymen's Retail Trade

Also a light grade of vines for lining out in nursery rows. I
guarantee careful grading and prompt shipment.

Grape and Currant Cuttings quoted upon receipt of amount and
varieties wanted, which should be ordered early.

Correspond before placing your order.

VICTOR DÉTRICHÉ, NURSEYMAN

ANGERS, FRANCE

TO CLOSE OUT

Fruit Tree Stocks

AT GREATLY REDUCED PRICES

APPLY FOR PARTICULARS TO

CHAS. F. MEYER,

99 Warren St., New York

JACS. SMITS, LTD.

Nurseries Naarden (Holland)

Headquarters for Hardy Rhododendrons, Hardy Azaleas and
Evergreens, Boxwood, Paeonies, Roses, Hydrangea P. G., etc.

Ask for catalogue and send your list of wants to our New York
office, No. 12 West Broadway,

RALPH M. WARD & CO., Representatives.

We offer now exceptionally cheap first-class Standard Roses worked on Rugus.

LABELS FOR NURSEYMEN.

Benjamin Chase, Derry, N. H.

When writing to Advertisers mention The National Nurseryman.

WINFIELD NURSERIES

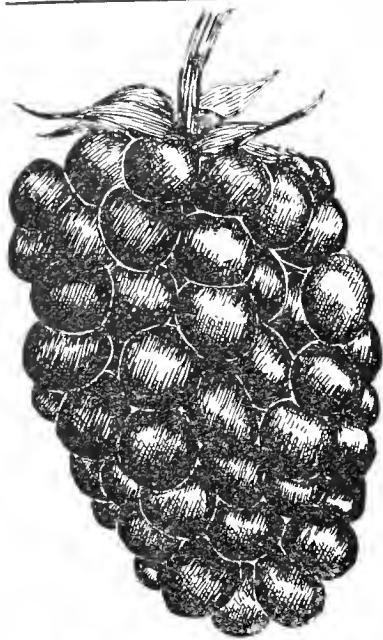
MAHALEB

AND

FOREST TREE SEEDLINGS

PEACH, BUDDED APPLE AND FINE SHADE
TREES IN CARLOAD LOTS
FOR FALL 1905 AND SPRING 1906.

COOPER & MONCRIEF, PROPS
WINFIELD, KANSAS



STRAWBERRY and BLACKBERRY plants
of all the new and old sorts in large
or small quantity.

PREMO DEWBERRY.

ELDORADO, KRUEGER, MASENA, WARD
and BLOWERS BLACKBERRIES.

PEACH TREES—1 yr. and June Buds. We
have the finest lot of June budded
Peach we ever saw grow, also a
general line of other stock.

MYER & SON,
BRIDGEVILLE, DEL.

BOX STRAPS

Any Lengths up to 63 Inches

Light gauge, soft, strong, cheap, convenient. Average weight,
one ounce per foot. Eight straps 12 inches long cost one cent. *Write
or Price List.*

WARD - DICKEY STEEL CO.
INDIANA HARBOR, IND.

Manufacturers of Planished Sheet Steel

Apple Trees

In good assortment; some extra heavy trees for
special trade. Low prices in large or small lots.

West Jersey Nursery STANTON B. COLE,
Bridgeton, N. J.

POTS! POTS! POTS!

We are manufacturers of **Standard Flower Pots** equal
to the best on the market. We make a special size Long Tom Rose Pot, for
nurserymen. Write us about it if interested.

THE KELLER POTTERY COMPANY, 213-23 Pearl Street
NORRISTOWN, PA.

PEACH SEED

Mountain Grown Naturals in any quantity.
Must be sold. : : Write for prices.

PINNACLE SEED AND NURSERY CO., Rochester, N. Y.

CHARLES DÉTRICHÉ, Senior
ANGERS, FRANCE

**GROWER AND EXPORTER
OF FRUIT TREE STOCKS
FOREST TREES AND
ORNAMENTALS** ❀ ❀ ❀ ❀

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO.,
NEWARK, N. Y.

Sole Representatives for the United States.

E. T. Dickinson, CHATENAY SEINE,
FRANCE

GROWER AND EXPORTER OF

**French Nursery Stocks, Dutch Bulbs,
Gladioli, Etc. Fruit Tree Stocks.**

All grown specially for the American trade.

PEAR AND CRAB APPLE SEED

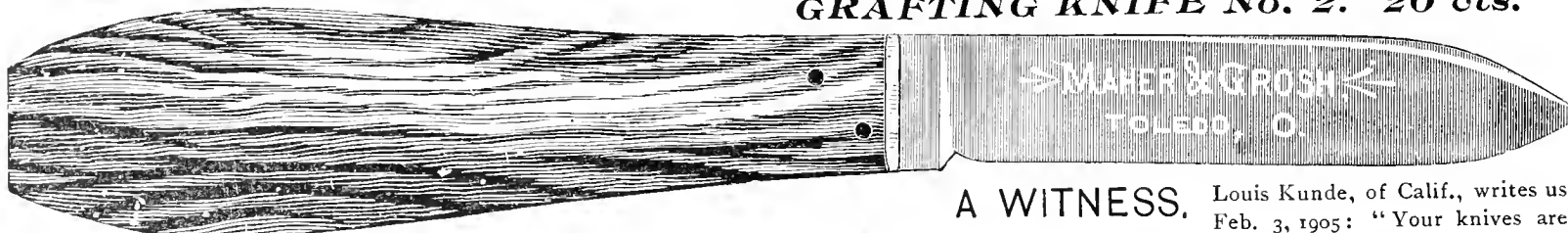
The most complete assortment of Ornamental Stocks,
Trees and Shrubs.

GEO. E. DICKINSON, 1 BROADWAY, NEW YORK

PEACH SEED

We have several hundred bushels of Virginia, North Carolina and
Tennessee peach seed, will sell at reduced prices. Also 1,000 bushels of
choice mixed peach seed at a sacrifice, on account of removal from our
present location. Samples and prices sent on request. P. O. Box 451.
Long distance C. & P. Phone, South, 1398., 117 Hanover Street,
Baltimore, Md. **W. W. Whittman & Co.**

GRAFTING KNIFE No. 2. 20 cts.



Cut is exact size of our Grafting Knife No. 2. Samp'le, by mail, 20 cents. 6 for \$1.00.
No. 1 has a "sheep foot" blade and is larger. Sample, by mail, 25 cents. 5 for \$1.00.
Budding Knife, riveted in handle, 25 cts. 12 for \$2.25, postpaid. Pocket Budder, 35 cents.
Pruning Knife, riveted in handle, 50 cents. 5 for \$2, postpaid. Pocket Pruner, 75 cents.
Our New Propagating Knife, white handle, straight cutting edge, price 50 cts. You
have been paying 75 cts. for a much inferior knife. We hope you will try us.

MAHER & GROSH CO., 90 A Street, TOLEDO, OHIO.

When writing to Advertisers mention The National Nurseryman.

A WITNESS. Louis Kunde, of Calif., writes us
Feb. 3, 1905: "Your knives are
better than any other grafting knives, and do better work
than those I pay \$1.00 for here. I recommend them to my
neighbors, and whenever they see one they want it of me."

Send for 12-Page Special Nursery Catalogue.

L. B. PEASE, of Lock-
port, writes us April 7th:
"I never had a knife to use
like those I got off you and
my men are well pleased
with them too. I have
tried several brands but
could not get a good blade
until those you sent us.
Send me two more propa-
gating knives."

WE HAVE THEM

Strictly First Class European Plum

One and two year old. Full list of varieties and grades. The above is the finest stock of plums grown in Western New York.

WRITE US FOR PRICES

MOREY & SON,

Wholesale Nurseries, Dansville, N. Y.

Apple, Cherry, Peach Plum and Keiffer Pear Trees

APPLE SEEDLING

Clean and healthy. Well graded. None better.

Osage, Russian Mulberry and Soft Maple Seedling.

Bechtel's Double Flowering Crab, all sizes, including small trees for planting in nursery.

Shade Trees

Elm, Soft Maple, Box Elder, Weir's C. L. Maple.

GRAPE VINES, FLOWERING SHRUBS.

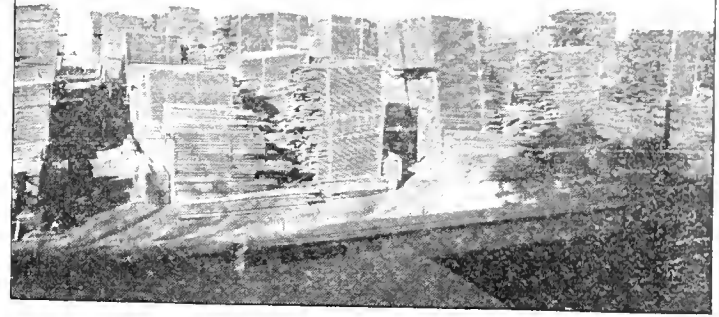
APPLE GRAFTS. All styles made to order.

PETERS & SKINNER

CAPITAL NURSERIES

NORTH TOPEKA, KANSAS

When writing to Advertisers mention The National Nurseryman.



Greenhouse Cypress

There are two kinds of Cypress we know about—the best kind and the others. The best kind is the "Burnham Kind," the kind that goes into all our houses. Millions of feet air drying 2 years before a foot is used. This care and thoroughness with everything is one reason why our greenhouse materials are known as standard—"just as good as the B. H. P. Co.'s," means, you already know how good ours is. The mere need of comparison is reason enough to doubt the comparer.

Whether we furnish materials or build your houses—all the same, the best—the best skill in erecting.

Then there is the 50 years of knowing how—this goes into your houses too. Send for Catalog H-G.

BURNHAM-HITCHINGS-PIERSON CO.
GREENHOUSE DESIGNERS AND MANUFACTURERS
1133 BROADWAY, Cor. 26th ST., NEW YORK
BOSTON BRANCH: 819 TREMONT BUILDING



THE HAWKEYE TREE PROTECTORS

Have Become A Necessity To Every Fruit Grower

They will protect the young trees against rabbits, mice and other vermin at a trifling cost per tree.

They are easily attached and with any care at all will last until the tree requires no further protection. They are a good thing and it is to the interest of every nurseryman to push these.

We will make you our wholesale price and will ship your orders direct to your customers.

You can sell them at a profit at no expense whatever to you.

We make Veneer wrappers for Strawberry and other plants. WRITE US TODAY.

BURLINGTON BASKET CO.

Box 1260 BURLINGTON, IOWA

We Offer For Fall 1905 and Spring 1906

6,000 plums, Japan on Plums 1 and 2 years.

CAROLINA POPLAR, SILVER MAPLE, CATALPA SPECIOSA

9 to 10 feet and 10 to 12-foot grades. 30,000 budded apples 2 years $\frac{5}{8}$ and $\frac{3}{4}$. Prices low f. o. b. Correspondence solicited.

R. R. HARRIS, Harrisville, W. Va.

P. O U W E R K E R K

1123 SUMMIT AVENUE

JERSEY CITY, N. J.

Rhododendrons, Clematis, H. P. Roses, Hardy Azaleas, Paeonias, Magnoleas, Box Trees Fancy Conifers, Hydrangeas, and Shrubs, our specialties at our **HOLLAND NURSERIES**. Some of the goods on hand here during the packing season.

When writing to Advertisers mention The National Nurseryman.

ESTABLISHED 1875

Mt. Arbor Nurseries

E. S. WELCH, Prop - - - SHENANDOAH, IOWA.

One of the largest, best equipped and most up-to-date nursery plants in the United States.

Large Supply for Fall 1905, Spring 1906.

APPLE

Over 100 Best Varieties.

PLUM AMERICANA
Largest Stock in the United States.

CHERRY

Leading Sour Varieties.

APPLE SEEDLINGS
Grown on New Land Free From Disease.

ROSES

Fine Lot, Hybrid Perpetual Climbing and Ramblers.

ORNAMENTALS
Splendid Stock of Best Kinds.

Forest and Deciduous
TREE SEEDLINGS
One to Two Million Leading Kinds.

APPLE GRAFTS
Made To Order.

Is your name on our mailing list?

Three Wholesale
Price Lists

(To the Trade only.)

**Fall, Winter
and Spring.**

F. JAMES & SONS, Nurserymen

Ussy, Calvados, France

Offer a general assortment of Fruit Tree and general Nursery Stocks, Roses, etc., etc.

Prices very low. Packing Secured. Catalogue Free.

Agents for the United States and Canada.

C. C. ABEL & CO., 110-116 Broad St., NEW YORK

Forest Tree Seedlings

We offer for Fall or Spring delivery a large stock of Forest Tree Seedlings, all nursery grown, well rooted and well graded.

BLACK. LOCUST 8-12, 12-18, 18-24, and 24-36 inch grades.

HONEY LOCUST 8-10 inch grades.

HARDY CATALPA 8-12, 12-18, 18-24 and 24-36 inch grades.

RUSS. MULBERRY 8-12, 12-18, 18-24 inch, 2-3 and 3-4 foot grades.

ASH (white) 8-12, 12-18, 18-24 and 24-36 inch grades.

BOX ELDER 8-10 inch grades.

WHITE ELM 8-12, 12-18 and 18-24 inch grades.

Also Butternut and Persimmon seedlings, large shade trees and flowering shrubs. Prices will be right; we make them ourselves.

GERMAN NURSERIES,

Carl Sonderegger, Prop., Beatrice, Neb.

If You Want the Finest

European and Japan Plums

in Dansville, both 1 and 2 yrs., also
1 yr. Cherry and Keiffer Pear, write

JAMES M. KENNEDY, Dansville, N. Y.

When writing to Advertisers mention The National Nurseryman.

Bridgeport Nurseries

ALBERTSON & HOBBS

BRIDGEPORT, INDIANA

The largest and most complete in the state and
one of the largest and best equipped
in the country

FOR SPRING OF 1906

PLUMS (large stock, all grades) European, Japan, Americana. CHERRIES, PEARS, Std. and Dwf. (all grades), APPLE, PEACH, QUINCE, GRAPE, CURRANTS, SMALL FRUITS, SHADE TREES, ORNAMENTAL TREES, SHRUBS, VINES, ROSES, Etc., Etc. APPLE SEEDLINGS, FOREST SEEDLINGS, IMPORTED CHERRY, PEAR, PLUM SEEDLINGS.

GRAFTS put up to order only—
NO JOB LOTS TO OFFER

Our SPADES the cheapest and best in the market

TRADE LIST READY FEB. 1st.

Our cellars are well filled and shipments can be made any day. Order early and have goods set aside for you.

WANT LISTS PRICED PROMPTLY

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

SHRUBS - JAPANESE IRIS - PAEONIES

In Thousands or Car Lots

The United States Nursery Co.

RICH, MISS.

LENAULT, HUET & COLOMBE,

NURSEYRMEN,

USSY, CALVADOS, FRANCE.

Growers and Exporters Of French Nursery Stock

A great assortment of fruit trees such as Mahaleb, Mazzard, Myrobolan, Pear, Apple, Quince, Manetti, Rose, Multiflora, Forest Trees, Ornamental Shrubs and Evergreens, Conifers and Roses.

CATALOGUE FREE.

When writing to Advertisers mention The National Nurserymen.

The L. Green & Son Co.

Western Reserve Nurseries,

PERRY, Lake Co., - - OHIO.

XXXX

Carry a most complete line of the wants of the trade, including a fine assortment of Roses of all kinds, Maples, Silver, Norway, Ash Leaf and Weir's Cut Leaf, Elms, Catalpas, Mt. Ash, European Cut Leaf, Weeping Birch, Magnolias, Double Lilacs, tree form and Snow Ball, tree form, Clematis, Hydrangea, tree and bush form, American Sweet Chestnuts, Car. Poplars, Currants, Grapes, Rhubarb, a general good assortment of shrubs of nearly all kinds and sizes.

Evergreens, Arbor Vitae, Siberian, Pyramidalis and Tom Thumb, Pines, Austrian, Scotch and White, Norway Spruce, etc., etc. All Evergreens two and three times transplanted and very fine.

Native Plums one and two years in the three grades.

We also have an elegant line of Perennial Plants in a full assortment of varieties, consisting of the newest and most popular sorts, on which we are able to make special inducements for early orders.

Correspondence solicited and inspection invited.

LARGEST GROWER IN AMERICA OF GRAPE VINES

OTHER SPECIALTIES

Currants and Gooseberries

Introducer of Campbell's Early Grape, Josselyn Gooseberry, Fay Currant.

Over a quarter of a century with no change whatever in ownership or management.

Our main business is the growing of unusually high grade stock suitable for the proper filling of Nurserymen's Retail Orders. There being no standard for grading above kinds of stock, every grower of the same is at perfect liberty to adopt his own ideas for growing and grading and alter the same as often as he sees fit.

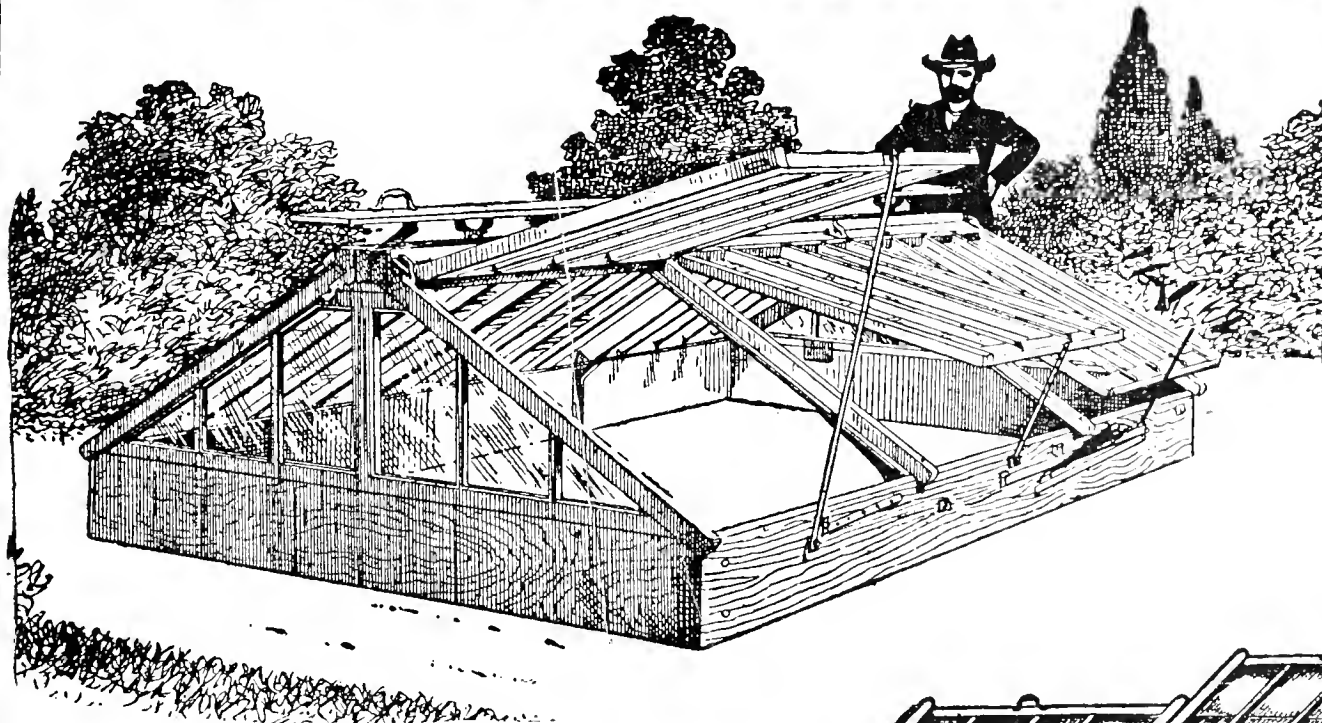
Our stock this Season has made very heavy growth and we have ordered extra boxing to meet this necessity. Box and packing free.

Prices reasonable but not always lower than are generally quoted for light rooted stock.

Please send us your list of wants.

GEO. S. JOSSELYN

FREDONIA, N. Y.

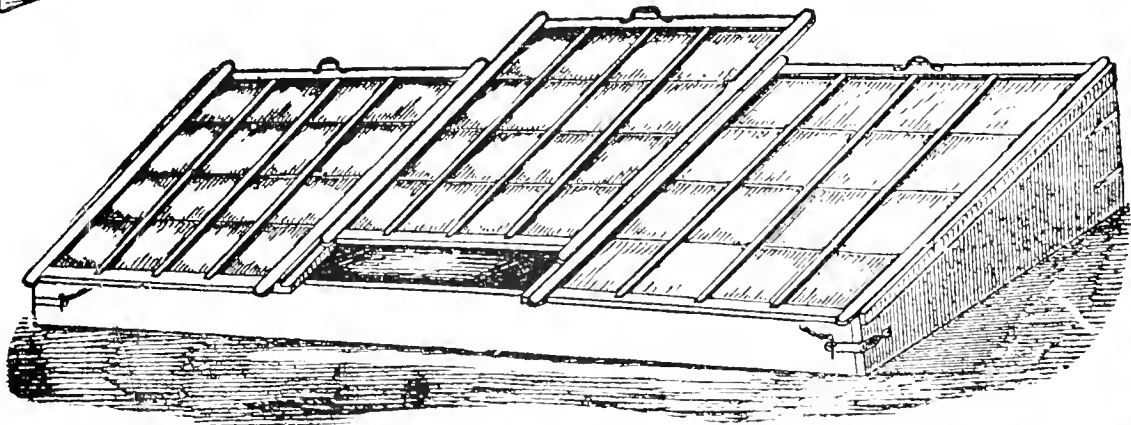


The Premier Greenhouses

FOR COMMERCIAL OR AMATEUR PURPOSES

Are portable, soundly built of excellent material and the prices range from \$20 to \$2,000. Catalogs on application.

C. H. MANLEY, Dept. N. N., PREMIER MFG. WORKS, ST. JOHNS, MICH.



The Premier Span Roof Garden Frame

This is one of the most useful small structures possible for the Fruit grower and Gardener. Can be used for a variety of purposes.

Prices on application.

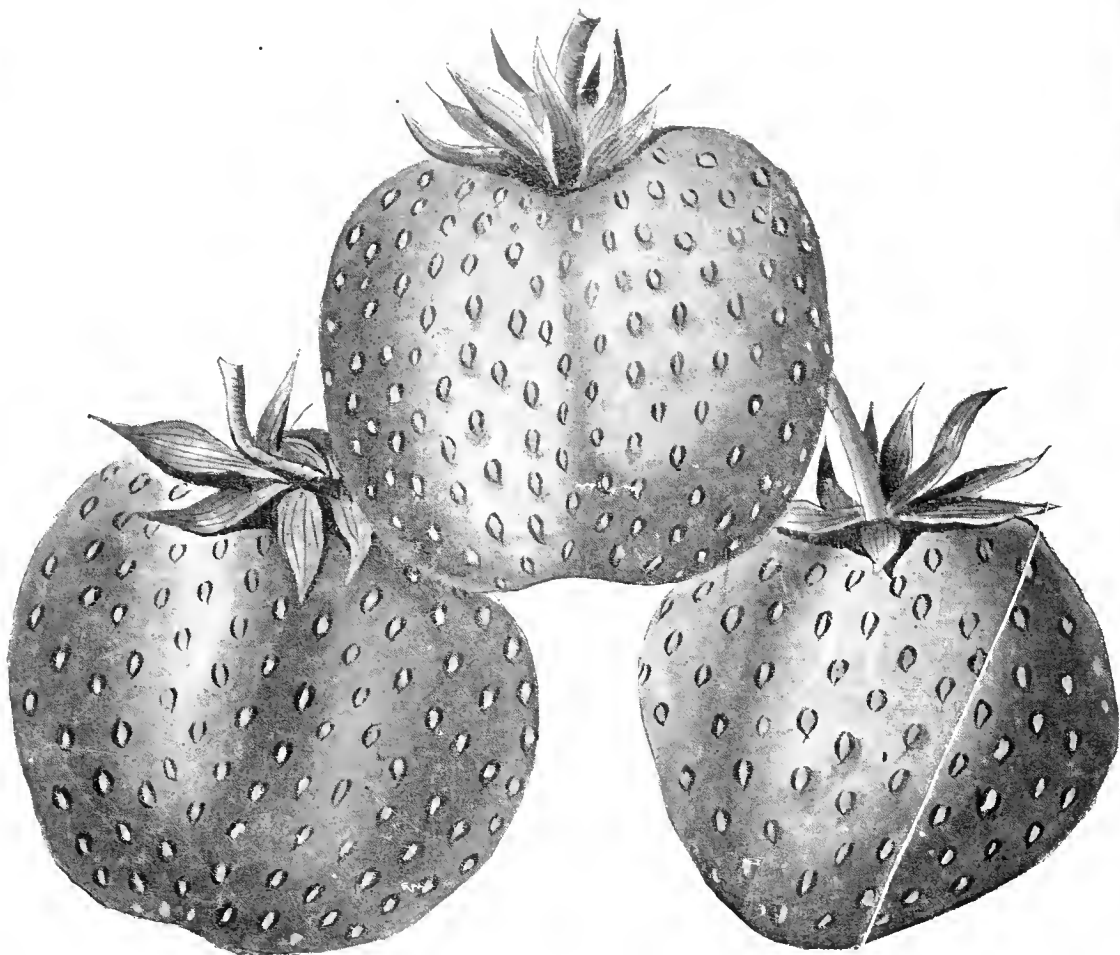
**THE PREMIER HOT
BED SASH & FRAMES**

are inexpensive, durable
and effective

J. G. HARRISON & SONS,

Berlin, Maryland

Have in Surplus
for Commercial
Orchards:



	5-7	5-6	4-5	3-4
Alexander.....	100	200	200	100
Albemarle Pippin.....	500	500	200	100
Baldwin.....	9,000	9,000	9,500	8,500
Ben Davis.....	8,500	8,500	5,000	6,500
Early Strawberry.....	1,000			
Fameuse.....	200	200	200	
Gravenstein.....	200	400	400	300
King.....	2,000	3,000	2,000	1,000
Limber Twig.....	200	200	200	200
M. B. Twig.....	3,000	500	300	300
Missouri Pippin.....	3,000	1,000	1,000	1,000
Mann.....	1,500	500	500	100
N. W. Greening.....	5,000	4,000	4,000	4,000
Red Astrachan.....	3,000			
Stark.....	1,000	5,000	4,000	3,000
Sutton's Beauty.....		500	500	500
Smith's Cider.....	3,000	3,000	2,000	1,000
Wagner.....	500			
Rambo.....	100	100	100	100
Yellow Belle Flower.....	1,000	500	500	100
Yellow Transparent.....		500	500	500

Peaches One Year From Bud:

	5-7	5-6	4-5	3-4	2-3	1-2
Belle of Georgia.....	1,000	1,000	1,000	1,000	1,000	1,000
Bray's Rarripe.....			500	500	500	500
Bokara.....	100	100	300	300	300	300
Brandywine.....	100	100	300	300	300	300
Chair's Choice.....	1,000	1,000	1,000	1,000	3,000	3,000
Crawford Late.....	1,000	1,000			1,000	3,000

	5-7	5-6	4-5	3-4	2-3	1-2
Carman.....					2,000	2,000
Connett's So. Early.....	100	100	500	1,000	2,000	2,000
Champion.....					2,000	2,000
Crawford Early.....			500	1,000	1,000	
Elberta.....					1,000	10,000 15,000
Foster.....	500	500	500	500	500	500
Fox Seedling.....	1,000	2,000	3,000	3,000	3,000	3,000
Frances.....	1,000	1,000	1,000	500	200	
Globe.....	500	500	500	500	500	1,000
Greensboro.....	300				1,000	3,000
Geary's Holdon.....			500	500	500	500
Hill's Chili.....	1,000	2,000	3,000	3,000	3,000	3,000
Kalamazoo.....				500	500	500
Lewis.....	100	100	500	500	500	500
Moore's Favorite.....	500	500	500	1,000	1,000	1,000
Mt. Rose.....	500	1,000	1,000		2,000	2,000
Mary's Choice.....	100	100	500	500	200	200
Old Mixon Free.....	1,000	1,000			1,000	1,000
Prize.....	100	100	100	200	200	200
Piequet's Late.....	100	100	100	200	200	200
Red Cheek Melo.....	200	200	200	400	400	400
Reeve's Favorite.....	1,000	2,000	2,000		3,000	3,000
Stephen's Rarripe.....			500	500	1,000	1,000
Salway.....	1,000	500	1,000		3,000	3,000
Stump.....		500	500		1,000	1,000
Thurber.....	200	200	200	100	100	100
Triumph.....	200	200	200	200	200	200
Vietor.....	200	200	200	200	200	200
Wheatland.....			500	1,000	1,000	1,000
Wonderful.....	1,000	2,000	3,000	3,000	3,000	3,000
Waddell.....	100	100			500	500
Yellow St. John.....			500	500	500	500

Five Million Strawberry Plants. Varieties and Prices on
Application. Let Us Have Your Order

J. G. HARRISON & SONS, BERLIN, MARYLAND.

THE NATIONAL NURSERYMAN

JANUARY
1906

Published monthly at Rochester, N. Y. in behalf of the trade interests of nurserymen, seedsmen and plant growers in general.

The Monroe Nursery

ESTABLISHED 1847.

OFFER A GENERAL LINE OF

Choice Nursery Stock

FOR THE COMING SPRING.

Cherry, Std. Pear, Plum, Peach,
Etc., in storage for prompt shipment.

I. E. Ilgenfritz' Sons Co.
Monroe, Mich.

Our Specialties

SPECIMENS. Rhododendrons, Hemlocks, White Pines and
Large Ornamental Evergreens.

Norway Maples $3\frac{1}{2}$ to $5\frac{1}{2}$ inch col.
Pin Oaks, 2 to $3\frac{1}{2}$ " "
American Chestnut 8-10 and 10-12 ft.

Ibota Privet $\frac{2}{3}$ and $\frac{3}{4}$ ft.
Forsy Mis Viridissima 4-5 ft. heavy.
Ligustrum Regelianum, all sizes.

Andorra Nurseries,

WM. WARNER HARPER, PROP.

CHESTNUT HILL, PHILA. PA.

This space is reserved for

The Oregon Nursery Company

SALEM, OREGON

Brown Brothers Co.

Continental Nurseries,
ROCHESTER, NEW YORK.

INTRODUCERS OF THE BABY RAMBLER ROSE.

Write us for prices on dormant field grown stock or
on $2\frac{1}{2}$ inch pot plants for delivery now or for planting
next spring outside—

After about March 15 we will have 4 and 5 inch plants
in bloom in pots—Just the thing for Easter and for
Salesman's Samples.

Write for quotations
on general stock.

CHASE BROTHERS COMPANY

New England Nurseries

ROCHESTER, NEW YORK



Specialties for Spring, 1906.

PEARS—Keiffer, Standard, Duchess Dwarf.

PLUMS—General Assortment—Japan and European.

ORNAMENTALS—Birch Cut Leaf, Maple Silver, Ash Leaf and Weir's Plane Oriental, Poplar Carolina.

SHRUBS—Althea, Calycanthus, Cornus, Deutzia, Forsythia, Hydrangea, Kerria, Spirea, Sambucus, Symphoricarpos, Viburnum and others.

CURRENTS—Champion, Cherry, Fay's, North Star, White Grape.

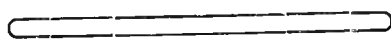
GOOSEBERRIES—Pearl, Smith's Improved.

BLACKBERRIES—Rathbun.

ROSES—A general assortment.

PERENNIALS—Achillea, Alyssum, Canna, Dahlia, Daisy Shasta, Eulalia, Golden Glow, Iris, Lychnis, Monarda, Phlox, Primula, Sweet William, Tritoma and others.

A general assortment in No. 2 and 3 grades of Apples, Pears, Cherries and Plums.



STOCK IN OUR NEW STORAGE BUILDINGS IN PRIME CONDITION
AND READY FOR WINTER OR EARLY SPRING SHIPMENT.

Boxed and packed under cover.

Car load lots loaded under cover.

Ask for our Bulletin No. 1.

CHASE BROTHERS COMPANY, ROCHESTER, N. Y.

THE NATIONAL NURSERYMAN

FEBRUARY
1906

Published Monthly at Rochester, N. Y. in Behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General.

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Choice Nursery Stock

FOR THE COMING SPRING.

Cherry, Std. Pear, Plum, Peach,
Etc., in storage for prompt shipment.

I. E. Ilgenfritz' Sons Co.
Monroe, Mich.

The Coming HEDGE PLANT.

LIGUSTRUM REGELIANUM, superb habit—absolute
hardiness—Full color a strong point—all sizes.

LIGUSTRUM IBOTA AND SPIRAEA
VAN HOUTTEI BY THE THOUSAND

DON'T FORGET

We are headquarters for transplanted stocks in
Specimen Sizes.

Andorra Nurseries,

WM. WARNER HARPER, PROP.

CHESTNUT HILL, PHILA., PA.

Oregon

Nursery

Company

We have secured this space in The National
Nurseryman for one year in which to tell
our Eastern friends about the beautiful Cut-
Leaved Birch, Thorns, Rambler Roses, etc.,
we have to offer the trade for shipment in
Fall of 1906 and Spring 1907. For particu-
lars, address,

SALEM, OREGON.

Brown Brothers Co.

Continental Nurseries,
ROCHESTER, NEW YORK.

INTRODUCERS OF THE BABY RAMBLER ROSE.

Write us for prices on dormant field grown stock or
on 2½ inch pot plants for delivery now or for planting
next spring outside—

After about March 15 we will have 4 and 5 inch plants
in bloom in pots—Just the thing for Easter and for
Salesman's Samples.

Write for quotations
on general stock.

ALL WANTS
SUPPLIED
BY THE

"AUTO-SPRAY" IN 40 STYLES

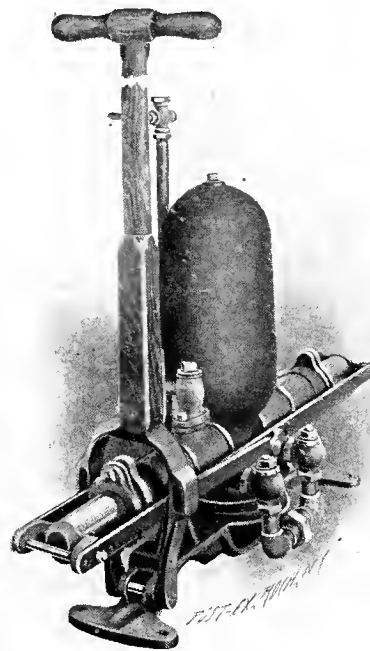
The Three Machines Represented Here Cover a Wide Range



"AUTO-SPRAY" No. 1.

The "Auto-Spray" No. 1 holds four gallons. **Entirely automatic.** Operated by compressed air. Works seven to ten minutes with one charge. The **most useful machine manufactured** for greenhouse work and odd jobs. Used in poultry houses, greenhouses, gardens, etc. Has displaced knapsack and bucket sprayers. **Used by Prof. L. H. Bailey, Mr. George T. Powell and leading authorities everywhere.**

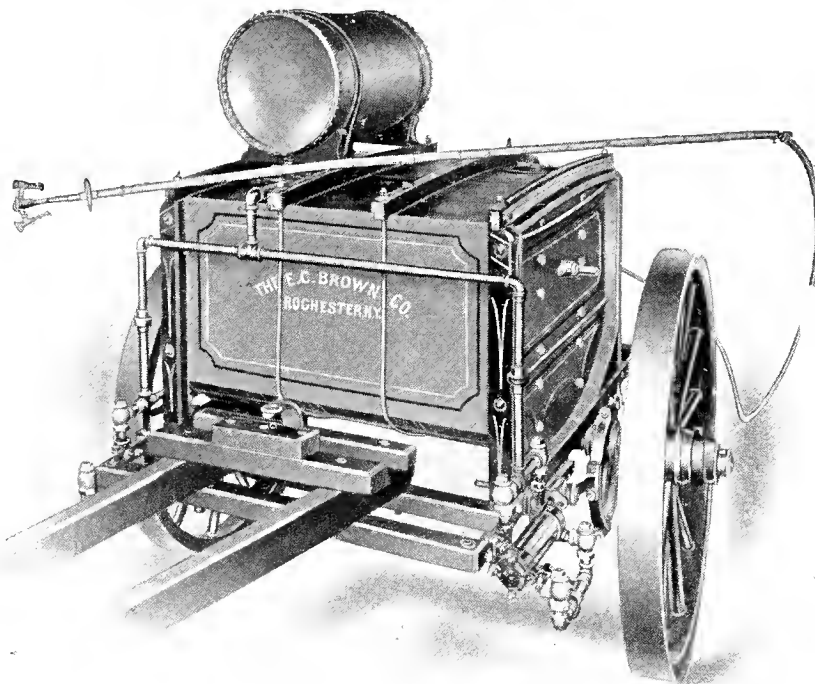
The "Auto-Spray" No. 7 or "Hydraplex" hand-power Pump for **large orchard uses** in connection with tank or barrel. Double cylinder, plunger style. **Guaranteed to excel all other hand power pumps in force, capacity, efficiency and durability.** Cast-iron base and air chamber. Air chamber large. Long fulcrum. Vertical handle lever. **Weight of operator helps pumping operation.** Develops 80 to 120 pounds constant pressure. Valves and cylinders, brass. Valves exposed. Packing adjustment, instantaneous; may be re-packed in fifteen minutes. Packing usually lasts two years. Pump will last a lifetime. Diameter of pump cylinder two inches. Stroke of plunger, five inches. Capacity, two leads of hose and four nozzles each lead. Sold with or without our "Never-leak" Cypress Tank. **One man can operate this Pump all day without fatigue** and would prefer to pump rather than hold the nozzle. This can be said of no other hand pump. Suitable for all hand service in apple, peach, pear and plum orchards, also in orange groves.



"AUTO-SPRAY" No. 7
or "HYDRAPLEX."

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THE NATIONAL NURSERYMAN

MARCH
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Published Monthly at Rochester, N. Y. in Behalf of the Trade Interests of Nurserymen, Seedsmen and Plant Growers in General.

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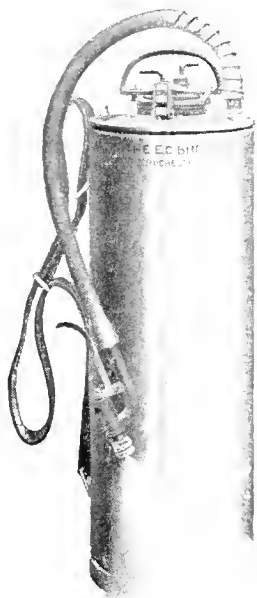
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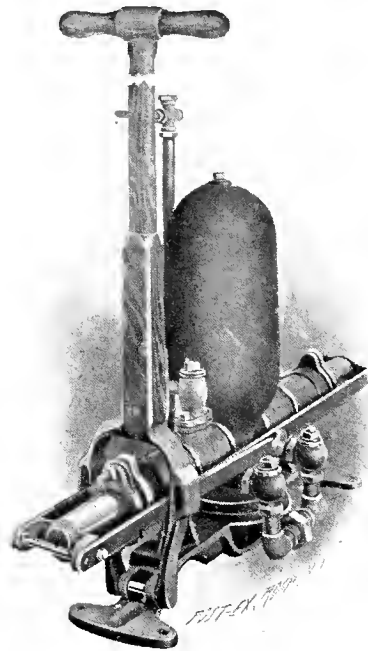
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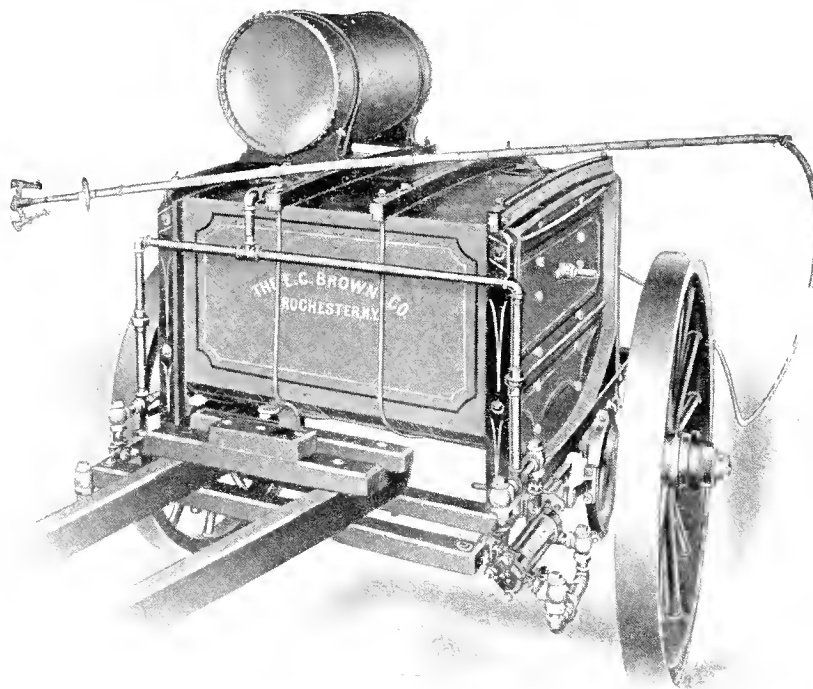
The "Auto-Spray" No. 7 or "Hydraplex" hand power Pump for large orchard uses in connection with tank or barrel. Double cylinder, plunger style. Guaranteed to excel all other hand power pumps in force, capacity, efficiency and durability. Cast-iron base and air chamber. Air chamber large. Long fulcrum. Vertical handle lever. Weight of operator helps pumping operation. Develops 80 to 120 pounds constant pressure. Valves and cylinders, brass. Valves exposed. Packing adjustment, instantaneous; may be re-packed in fifteen minutes. Packing usually lasts two years. Pump will last a lifetime. Diameter of pump cylinder two inches. Stroke of plunger, five inches. Capacity, two leads of hose and four nozzles each lead. Sold with or without our "Never-leak" Cypress Tank. One man can operate this Pump all day without fatigue and would prefer to pump rather than hold the nozzle. This can be said of no other hand pump. Suitable for all hand service in apple, peach, pear and plum orchards, also in orange groves.



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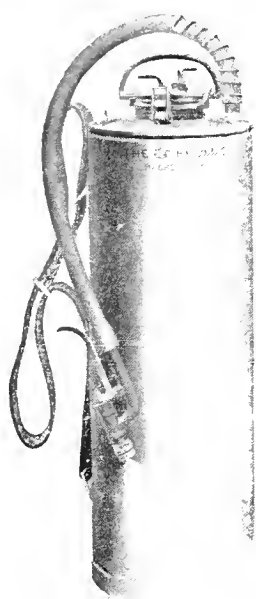
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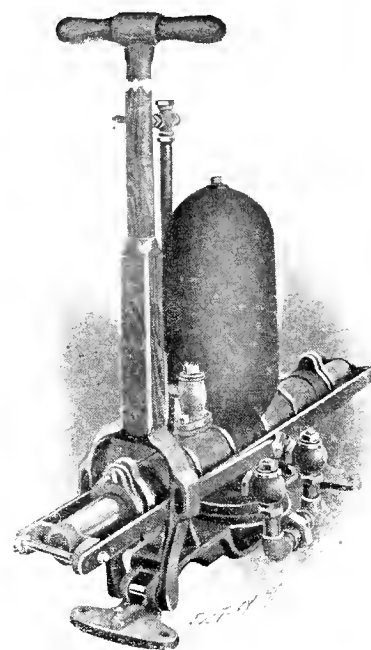
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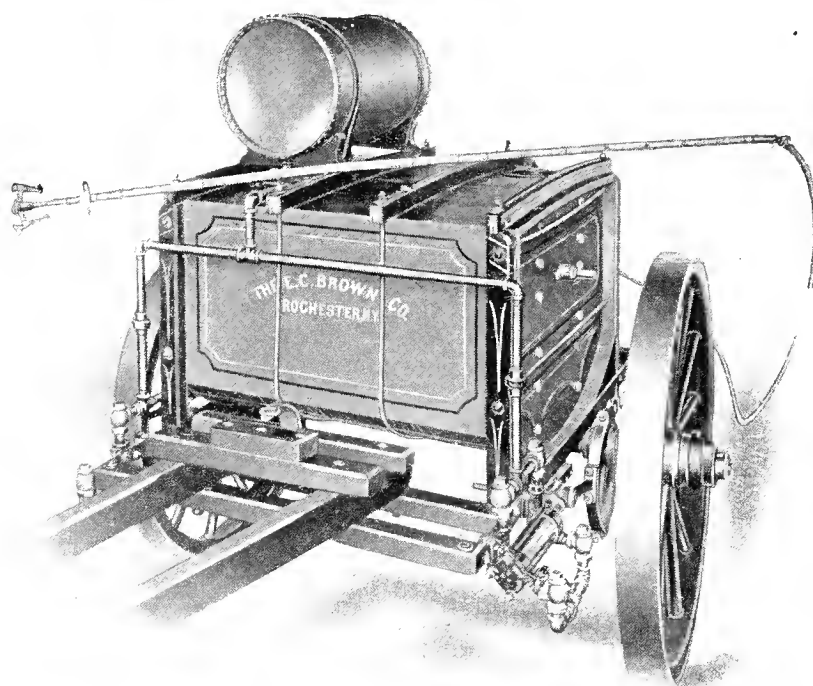
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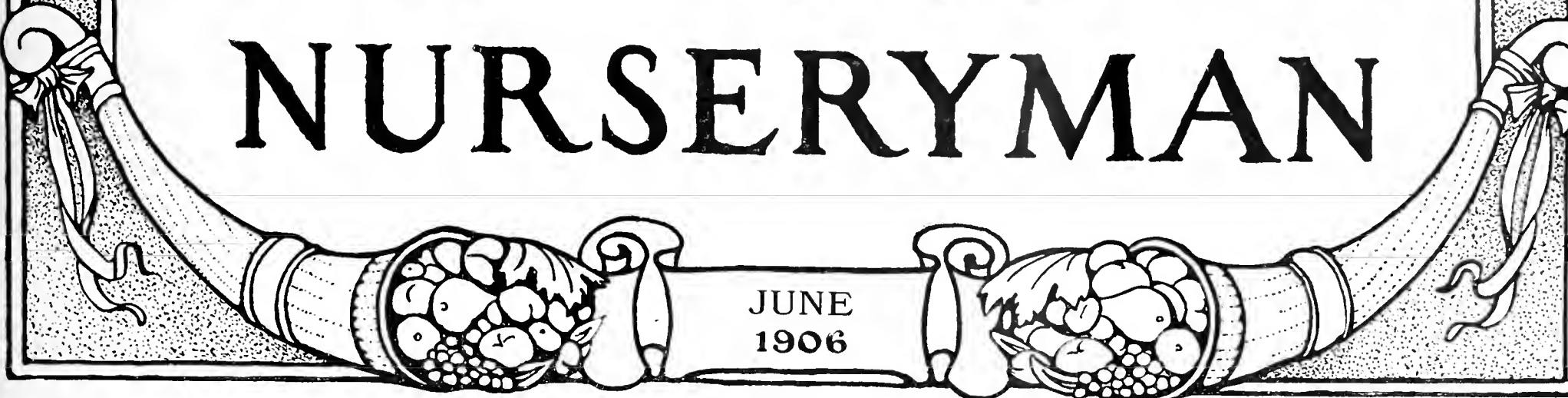
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SOUTHERN RAILWAY, WASHINGTON, D. C.

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Vincennes Nurseries

W. C. REED, Proprietor.

VINCENNES, INDIANA.

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Cherry, two year, a general assortment of Sweets
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Cherry, one year promise very fine. A general assort-
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Stocks, extra strong grades in leading varieties.

Plum, one and two year on Plum Roots.

Apple, two year a general assortment.

Peach, one year, leading varieties.

Roses, budded and on own roots.

Caroline Poplar, two year very fine.

Norway Maple, Elm, Tulip, Poplar, etc.

Gooseberries and Currants, two year.

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AUGUST
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The Monroe Nursery

ESTABLISHED 1847,

OFFER A GENERAL LINE OF

Choice Nursery Stock

FOR THE COMING SPRING.

Cherry, Std. Pear, Plum, Peach,
Etc., in storage for prompt shipment.

I. E. Ilgenfritz' Sons Co.
Monroe, Mich.

EVERGREENS Our Leading Specialty.

RHODODENDRONS, HEMLOCKS, WHITE PINES,
BOX BUSH. A general collection of
specimen ornamentals.

ALSO

NORWAY MAPLES, PIN OAKS, IBOTA
PRIVET, SPIRAEA VAN HOUTTAI
by the thousand.

Andorra Nurseries,
WM. WARNER HARPER, PROP.
CHESTNUT HILL, PHILA., PA.

Oregon Nursery Company

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Leaved Birch, Thorns, Rambler Roses, etc.,
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Fall of 1906 and Spring 1907. For particu-
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SALEM, OREGON.

Brown Brothers Co.

Continental Nurseries,
ROCHESTER, NEW YORK.

INTRODUCERS OF THE BABY RAMBLER ROSE.

Write for quotations
on general stock.

ORNAMENTAL STOCKS

We Grow

300 varieties of Conifers, 1 to 4 years old.
1200 varieties of Ornamental Trees and Shrubs,
1 to 3 years old.
1600 varieties of New and Old Ornamental Trees
and Shrubs in all sizes.
250 varieties of Climbing Plants.
400 varieties of Conifers 1 to 4 ft. high.
400 varieties of Perennials.
800 varieties of New and Old Roses.

NURSERIES 420 ACRES.

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Nurseries,

BARBIER & CO., Successors,
16 Route d'Olivet, ORLEANS, FRANCE.

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Alabama, Mississippi, Kentucky and Tennessee.

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All conditions are favorable. There are fine Markets,
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Successors to BREWER & STANNARD

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APPLE, CHERRY, PEAR,
PLUM, PEACH, APRICOTS,
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U. S. Department of Agriculture

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Oregon Grown Cut-Leaf Weeping Birch

A carload—20,000 trees—the FINEST EVER SEEN IN THE
EAST will be in cold-storage at DETROIT, MICH., ready
for Spring Shipments—February 15, 1907.

The Trees are the Finest ever
seen, and the Prices will be right.

GRADES: 4/5; 5/6; 6/8 and 8/10 feet.

Address for prices:

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J. H. SKINNER & CO., Proprietors,
Successors to PETERS & SKINNER.

WE OFFER

Apple, Cherry, Peach, Plum, Apricot,
Keiffer and Garber Pear.

Forest Tree Seedlings,

Mahaleb Seedlings, Apple Seedlings,

Keiffer Pear Seedlings,

Shade Trees, Weeping Mulberry,

Bechtel's Double Flowering Crab,

Flowering Shrubs, Roses, Vines,

Grapes, Currants, Rhubarb, Asparagus.

Bridgeport Nurseries

ALBERTSON & HOBBS
BRIDGEPORT, INDIANA

The largest and most complete in the state and one of the
largest and best equipped in the country.

FOR

FALL OF 1906 AND SPRING OF 1907

PLUMS (large stock, all grades) European,
Japan, Americana, CHERRIES, PEARS, Std. and
Dwf. (all grades), APPLE, PEACH, QUINCE,
GRAPE, CURRANTS, SMALL FRUITS, SHADE
TREES, ORNAMENTAL TREES, SHRUBS,
VINES, ROSES, etc., etc. APPLE SEEDLINGS,
FOREST SEEDLINGS, IMPORTED CHERRY,
PEAR, PLUM SEEDLINGS.

GRAFTS put up to order only—
NO JOB LOTS TO OFFER

Our SPADES the cheapest and best in the market

TRADE LIST READY FEB. 1st.

Our cellars are WELL FILLED and SHIPMENTS can
be made ANY DAY. Order early and have goods set aside
for you.

WANT LISTS PRICED PROMPTLY

Mr. Nurseryman

Sales count, of course; but do you know that
the success of a merchant is governed by his
skill as a buyer—his progressiveness in keeping
in touch with and patronizing the best market
place?

This is Your Market Place

We believe that our nursery is a market place
that you cannot afford to ignore. We believe
that our immense stock of trees and shrubs;
our half a century's experience as nurserymen;
our policy of treating patrons in a courteous,
personal and appreciative manner, constitutes a
service that cannot fail to appeal favorably to you.

If you would have the latest (just issued)
index to this market place, Ask for our Autumn
Catalog.

Thomas Meehan & Sons, Inc.
Nurserymen,

Box T, Dreshertown, Penna.

TWO HUNDRED ACRES FIELD GROWN ROSES

Own Root—Leading Varieties

SHRUBS, JAPANESE IRIS, PAEONIES

In Thousands or Car Lots

The United States Nursery Co.
RICH, MISS.

Black Locust Seedlings

We still have at this date, December 1st, several million
of fine Black Locust Seedlings which we offer at very favor-
able prices. For the past few seasons the sales with us of
Black Locust Seedlings has been double that of all other
forest tree seedlings combined.

This tree stands at the head for rapid growth and dur-
ability, for posts and railroad ties. Large commercial plantings
are being made in the East as well as in the West. Get our
prices.

J. A. GAGE, Beatrice, Nebr.

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BUDDED APPLE

A SUCCESS

Our apple are the finest we have ever grown. We have only a few leading sorts left. In buds. Better try them.

The photo below was taken in September



We Grow them—STRAWBERRY PLANTS

The wet season has made Strawberry Plants grow an extra quantity of roots on new soil.

WE GROW THE FOLLOWING VARIETIES :

Aroma,	E. H. Ekey,	Kansas,	Rio,
Auto,	Early Hathaway,	Lady Tompson,	Rough Rider,
Almo,	Eleanor,	Mitchell's Early,	Sample,
Brandywine,	Fairfield,	Marie,	Sen. Dunlap,
Bubach,	Gladstone,	Marshall,	Sharpless,
Bismark,	Gandy,	McKinley,	Starr,
Beder Wood,	Glen Mary,	Midnight,	Sutherland,
Boston,	Haverland,	Mark Hanna,	Stephen's Late,
Climax,	Hero,	New Home,	Tilghman's Fav.
Crimson Cluster,	Jessie,	New York,	Tennessee,
Clyde,	Johnson's Early,	New Globe,	Uncle Jim,
Dayton,	Lovett,	Oak's Early,	Warfield.
Excelsior,	Livingston,	Parson's,	

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J. G. HARRISON & SONS,

BERLIN, MD.

